

Vol. 7, No. 12

TAMPA, FLA., DECEMBER, 1926

15 Cts. A Copy

Uniformly



The Best

LOOKING FORWARD

A selling organization to achieve lasting success must not only make sales, but must accomplish them in such a manner as to assure a constant and expanding market for the products it handles.

It must constantly look forward to the verdict of the ultimate consumers; and must enlist their active good will if it is to find a place in the front ranks of successful modern commercial organization.

The combination of careful pack and grade and easy identification by means of these nationally advertised and easily recognized trademarks has won for the American Fruit Growers Inc., perhaps the greatest active good will of the consuming public which ever has been accorded any concern in the business of handling perishable foodstuffs.

Consumers actively demand fruits and vegetables thus identified which is why retailers insist upon them, and why wholesalers and jobbers in turn buy them readily, knowing in advance that goods well bought are half sold.

American Fruit Growers Inc.

Orlando, : Florida

Dependable



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EMULSO
THE BETTER SPRAY

For Better Scale Control

There is no excuse for letting scale get so abundant that twigs and even branches are killed back. THOROUGH and SYSTEMATIC spraying with EMULSO will control white fly and scale to such an extent that their damage will be negligible.

THE COST OF CROP PROTECTION

The price you pay for Peninsular Insecticides is measured in terms of "Crop Protection." Some products cost less per pound or gallon and some cost more; but whether it be NIAGARA DUSTS, EMULSO, DERISOL, DOW DRY LIME SULPHUR or any other PENINSULAR INSECTICIDE, all furnish more crop protection per dollar spent. PENINSULAR INSECTICIDES are sold by reliable authorized dealers or may be obtained direct from

"The Company That Sells Results"

Peninsular Chemical Co.
INCORPORATED

ORLANDO, FLORIDA

Richmond, Va.

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If you have not sprayed this fall do so before the spring growth starts. A thorough application of EMULSO with RED DIAMOND CALCIUM CASEINATE now should keep your trees clean until next fall unless we have a very dry summer.

UNIFORMITY

Year after year the quality of EMULSO is constant. Growers have learned that this uniformity means unvarying good results, and is one of the reasons why MORE EMULSO IS USED IN FLORIDA THAN ALL OTHER OIL SPRAYS COMBINED.

**TO FULLY APPRECIATE EMULSO COMPARE IT WITH
OTHER SPRAYS FOR A YEAR**

EMULSO
THE BETTER SPRAY

OIL INSECTICIDE FOR FRUIT TREES

Nearly Half A Century of Leadership!

To think on it a second, there is a great deal of meaning for you behind the phrase, "world's oldest and largest," especially when applied to a citrus nursery.

To be the world's oldest implies not only long years of sound experience, but a reputation for business integrity solidly built and jealously maintained.

To be the world's largest means in this day and age a leadership in quality of product, economy of costs and prices, and superiority of service.

The GLEN SAINT MARY NURSERIES are the OLDEST AND LARGEST CITRUS NURSERIES IN THE WORLD.

Glen Saint Mary Nurseries Co.

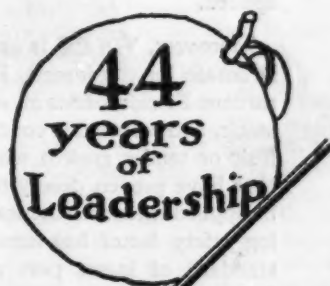
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Glen Saint Mary
Nurseries,
Winter Haven, Fla.

Gentlemen: Please send me
your new Citrus Catalog.

High Kill on Red Scale and White Fly

Mr. E. B. Miller, writing for the Seven Oaks Development Co., of Babson Park, says "We have used VOLCK under all conditions of dry weather, with no damage to bloom, fruit, or foliage, when temperatures read as high as 96 degrees, which cleaned up, with a high percentage of kill on Red and Purple Scale and White Fly." Mr. Miller, like many other citrus growers, has discovered that VOLCK paves the way for

More Bright Fruit and Clean Trees

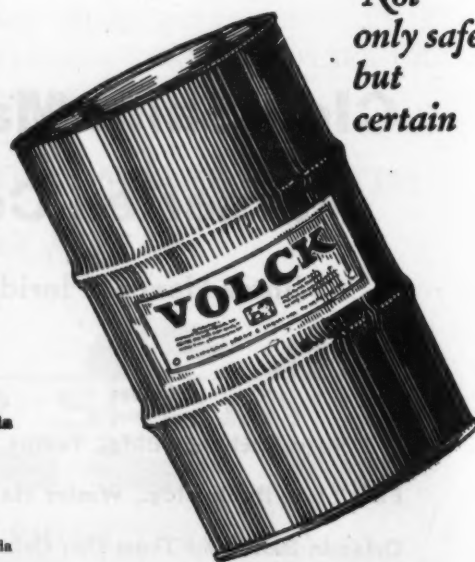
It kills the scale mites, and other insect pests that destroy the fine appearance of the fruit, and prevents rapid reinfestation, so that the fruit matures *clean and bright*.

VOLCK is a highly improved contact spray of a "quick-breaking" type, which quickly forms a uniform oily film over the entire sprayed surface. This film penetrates and saturates both egg and adult with deadly effectiveness, and provides a protective covering for fruit and foliage which either kills any additional young that may emerge or prevents them from settling down so that they quickly die. This accounts for the apparent increasing mortality of the pests for some time after the spray has been applied.

Moreover, VOLCK is as safe for the trees as it is unsafe for the insects. It has been widely used thruout Florida under all sorts of atmospheric, climatic, and seasonable conditions without injury to fruit or tender growth when applied in strengths that have proven deadly to the pests. VOLCK can be applied whenever the scale appears. This surprising safety factor has introduced an entirely new standard of insect pest control wherever citrus fruits are grown.

Spraying with VOLCK is an investment, not an expense. Clean bright fruit brings more money, and not only pays the cost of spraying, but much more besides.

Not only safe but certain



California Spray-Chemical Company
61 West Jefferson Street Orlando, Florida

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Non-Acid Fertilizer Co. Lakeland, Fla.	Chase & Co., Sanford, Florida	G. A. Draa, Aurantia, Florida

Royal Palm Nurseries,
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Vol. 7

TAMPA, FLORIDA, DECEMBER, 1926

No. 12

Scientists Find Florida's Sunshine Has Violet Rays to Increase Span of Life

Florida's "best story" has just been told by Dr. George Wood Clapp, of New York City, a lecturer, writer, and editor of the "Dental Digest." Dr. Clapp owns the Hiawasee Groves and is interested in other properties near Orlando.

Through his literary and editorial work, Dr. Clapp is in close touch with some of the leading scientific men and research workers of the country, and said modern research experiments with the ultra violet ray has brought out many facts valuable to human health and happiness. Among the most important of these he explained, is the effect of the ultra violet rays on plant life, which absorbs certain elements from the rays. These elements contained in fruits and vegetables grown under the Florida sun are more abundant than those grown anywhere under glass, for the Florida sunshine has an abundance of ultra violet rays throughout the year.

Two groups of scientists working independently of each other but watching closely the results obtained by their fellow scientists, Dr. Clapp said, have arrived at some startlingly valuable facts regarding the effects of the violet rays on human life.

Constitution Built

One group, working with the ultra violet ray, has demonstrated the surpassing value of the ultra violet ray

in increasing the resistance of the human body to certain serious diseases. The other group has brought out the fact that starvation exists in many well to do families; that a very large proportion of both children and adults may be suffering from low grade scurvy or rickets, though perhaps not of sufficient extent to be diagnosed as such; that the average American diet is such that it hinders growth and increases susceptibility to diseases, rather than to cure and that by modification of diet, the growth, health and efficiency of the individual may be improved and life prolonged.

These schools Dr. Clapp declared, are demonstrating by laboratory experiments that many of the forms of food which best maintain health and efficiency and lengthen life, include some of the most important things Florida is producing and which, through a part of the year, it can produce better than anywhere else.

There is a medical word with which everybody interested in the development of Florida should be interested and familiar, he said. The word is "metabolism." It covers the processes of nutrition and elimination. This function is largely controlled or influenced by two little glands in the body which can be stimulated by medicine or by the average person through purely normal means, he

added. The means are direct sunlight of a certain kind under certain carefully controlled conditions or an ample supply of vegetables and fruits grown in that particular kind of sunlight.

Rays Invisible to Eye

The particular kind of sunlight referred to is the ultra violet rays, which are invisible to the eye and which control to an astonishing degree metabolism in plants and animals. These rays are found in northern latitudes in the summer, usually between the hours of 11 and 2 p. m. but are almost wholly lacking in winter and have at least two extremely important effects Dr. Clapp explained. The first, that of giving to fruits and vegetables the powers to stimulate these little glands. The second effect is to greatly increase the resistance of the human body to bacterial invasion as in tuberculosis and pneumonia. Exposures of the body to the violet rays must be carefully controlled, he warned.

Florida enjoys a unique distinction which has never been properly explained to those who are in need of it. The state produces an abundance of fruits and vegetables, especially capable of stimulating normal body action. Florida grown fruits and vegetables supply the body in readily available forms, several of the most

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Putting the Citrus Trees to Sleep in the Rio Grande Valley

By A. T. Potts, in Monty's Monthly, McAllen, Texas

Dr. J. E. Coit, one of the best informed citrus men in the world, once said if we could have twenty-five to thirty nights where the temperatures dropped to about the frost point with a day temperature not regularly to exceed a hundred degrees for the summer months, that we would have a situation ideal for citrus production. This has been noticed by growers and the geography of citrus growing has always crowded the frost line. Fruits grown under such conditions as Doctor Coit describes are of the very highest quality with excellent color and good shipping qualities. In other words, such groves produce fruit far superior to that grown in the tropics.

In continental United States there are only a few areas where citrus may be grown successfully. These areas are characterized by intensive agricultural methods and a winter climate that attracts people from all over the world.

Since fruit of such high quality is produced near the frost line, it is only natural to expect that occasional winters a little more severe than the average would cause some injury to the trees. This is especially true with young plants, as they are more tender and more erratic in their growth. The grower is always confronted with the problem of minimizing any loss that might occur. The past two winters have been the most severe the Valley has known in many, many years. The experience of various growers has taught us some valuable lessons.

A tree in rapid growth is always more susceptible to cold than when in a rest period. The chief reason for this is that such a tree has a smaller percentage of plant foods in its cells than one that is not growing so fast. It is a well known fact that pure water will freeze at thirty-two degrees, but as the salt content increases the freezing temperature is lowered.

The percentage of salts in a dormant tree is much higher than in one in active state of growth. The first consideration then is to handle our orchards in such a manner as to avoid winter growth periods. As citrus

has several growth periods a year, it is sometimes difficult to control their behavior. As a general thing, a tree that has gone through the summer with satisfactory growth is more inclined to rest when cold weather is expected, if water and cultivation are withheld. On the other hand, if the orchard has been neglected, vigorous growth is likely to start with the first fall rains so that the trees do not have a chance to harden up before the period of greatest danger. From the cultural standpoint, then, it seems best to keep the tree growing throughout spring, summer and early fall so that it is ready for its normal rest period during the winter.

The next consideration is whether winter crops shall be grown in the orchard, a cover crop planted or the land left fallow. The best method is undoubtedly the use of a cover crop that does not require winter irrigation. Continuous, clean cultivation will soon exhaust the organic matter in the soil, leaving it hard and so it readily bakes after each irrigation. Organic matter also tends to hold moisture, thus preventing the necessity of irrigation at such frequent intervals. Organic matter aside from its own fertility tends to render plant food in the soil available. There is no system of permanent clean cultivation that is practical without a winter or summer cover crop. Most Valley orchardists instead of sowing a cover crop of oats, clover or something of this nature have permitted the weeds to grow during the winter months, thus gaining the organic matter necessary. Where some cover crop is seeded, oats or bur clover have been successful. Neither of these crops will require irrigation after once becoming established in the fall and since the use of water in an orchard during the winter is to be discouraged, they fit nicely into the scheme of putting the trees to sleep.

It is almost a universal practice to grow some winter crop between young trees. It is also universally recognized that such a procedure may be detrimental to the orchard. Most vegetable crops owing to their shallow root system require frequent ir-

rigation. This is almost sure to cause growth during the winter. This is especially true if the trees have not made a vigorous and satisfactory growth during the previous months. As a rule our winters are so mild that sufficient moisture for rapid growth is almost sure to produce it. It has been demonstrated time and again that such trees are readily injured by a heavy frost. There is also the further danger of producing a more or less water-logged condition that will react in a deleterious manner the following spring, though no serious injury may be done. If it is necessary to grow crops between the trees during the winter, something may be gained by throwing up small borders on either side of the tree row, so as to prevent irrigation waters from reaching the young trees. There will still be some water reaching the tree roots by percolation from the vegetable rows. This cannot be prevented.

As cold weather approaches some precaution should be taken to save the bud or as much of the top of the young tree as possible in case of a severe freeze. Various things have been tried with more or less success. Aside from orchard heating about the only thing that has given consistent satisfactory results is to paint the trunk with Bordeaux paste up to 15 to 18 inches and bank clean soil to a similar height. The Bordeaux paste is merely a disinfectant put on with the view of destroying decay producing organisms should any be present in the soil. The painting with Bordeaux may be done at any time during the early winter, while the banking of the earth should be put off as long as it is safe, say just before Christmas and should be pulled down as soon as danger of severe freezing is past, say from the first to the fifteenth of February. Do not leave this bank of soil for an indefinite period, as injury is almost sure to follow.

The use of mats or corn stalks pulled up around the trees has not proven satisfactory and is of little value except to protect from slight frosts. Such materials will permit the enclosed air to very quickly take on

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Marketing Efficiency=== What Remedy?

The Following Talk was Broadcast from WDBO, at 8:55 PM November 22, 1926, from Winter Park, Florida, by A. M. Pratt, Sales Manager, Chase & Company, Orlando, Florida

Florida demonstrated to itself today one of the worst cases of distribution it has had for a long time. 84 cars of Florida oranges were offered today at auction in New York, and averaged only \$3.00 delivered.

In the other 7 auctions over the United States Florida offered today only 104 cars of oranges, and because of being distributed so much lighter in these other auctions, these 7 auction markets averaged \$5.07 delivered—against New York's \$3.70—or a loss on the 84 cars in New York of \$1.37 per box. This means over \$400.00 a car or over \$33,000.00 loss in New York compared with the other auction markets—yet New York had the very finest fruit that left Florida.

The \$33,000.00 in comparison is only the beginning of the loss. The psychological effect of New York tumbling over itself as it did has temporarily killed the confidence of the trade and of the shippers. Everybody has to be readjusted as New York more than any market affects the general feeling as to the market.

The course followed by shippers and marketing organizations in feeding this overdose to New York is comparable to the overdose everybody had a hand in when we shipped week before last 829 cars of grapefruit.

In the New York deal it was a congestion geographically. In the grapefruit deal it was a congestion chronologically—the grapefruit having been shipped too much at once; whereas, the Florida oranges were put too many cars at the same place—both types of distribution extremely costly—and unnecessary from the standpoint of business efficiency.

In the case of the grapefruit we were all at fault—including the growers as well as packers in not looking ahead further in our picking problem. In the case of this New York deal the growers can not be blamed—it is strictly up to the packers, shippers, and marketing agents, and we have only ourselves to blame.

The real question is how such things can be avoided in the future. It is a plain case of competitive greed bringing about its own punishment, which to that extent may act as a remedy, but unfortunately the grower who was innocent receives the

brunt of the punishment in the financial loss resulting from such unintelligent distribution.

Through the good offices of Mr. W. L. Hall, of the U. S. Department of Agriculture, we receive daily the passings for different points, including New York and all the different auction markets. Possibly some other shipper like ourselves receive early in the morning the wired passings from Potomac Yards to each of the various auction markets. If every shipper had been watching these things carefully and the information had been available quickly to the shippers, we would not have had today's exhibit of such poor judgment in distribution.

Distribution geographically while cars are enroute, and distribution chronologically in the regulation of picking and shipping is over 75% of the problem of marketing. Do these two jobs right and it will make millions of dollars difference to the growers of Florida.

To perform these two distribution jobs efficiently there must either be a voluntary and general co-operation between all competitors for the good of the industry, or other means must be used to require all competitors to co-operate in this distribution both in place and time of our Citrus crop.

The Fruitmen's Club has gone a long way towards influencing and steadying the shipments from week to week but it is without authority and still without the strong moral pressure that it is entitled to. The public mind has not yet been aroused to the point that it should be on this problem of distribution of all shipments in an even way over the season as well as in a proportionate way to the various markets.

It is unfortunate but true that competitive interests—at least viewed temporarily—are often directly opposite to the interests of the grower or industry interests. The industry should be paramount. The interests of the grower should be held first regardless of competitive ambitions, rivalry, or jealousy, but there is nothing to make us good and until steps are taken where every competitor will realize that it will pay to be good, the individual operator will continue along lines that seem to his competitive advancement.

Four years ago in California when the growers there were writhing under the red ink returns that were coming in, and competitive greed was reaping its reward in the suffering of Citrus growers, the growers were aroused to point of action and formed in some places what was known as "The Growers' Committee". The Growers' Committee in each territory was composed in every case of one representative from each of the many different marketing organizations or shippers doing business in that territory. The representative was that grower who was the clearest thinker, the most fearless, and the most progressive; and so far as possible it seemed to be a case of natural leadership showing itself among the growers and the gradual growth from a talk-over-idea to a permanent committee.

The committees came into existence and these growers met every Tuesday for luncheon to talk over informally the problem from the growers standpoint instead of a competitive standpoint. They then began asking in the Sales Managers of the various competitors to talk over with them the problem from the growers standpoint and to show them the necessity of reconciling their competitive ambitions with the underlying purposes of the industry.

The idea at first was scoffed at as being of a Bolshevistic order—extremely radical; and that the growers did not have enough sense of the practical side of the business to do any constructive work, but the development of the simple idea demonstrated quite the contrary and in a quiet firm way these men are continuing with the plan in a fine constructive manner which has been welcomed by all marketing organizations though it was originally opposed by most of them.

It is so seldom that growers publicly praise their shipping or marketing organizations, and is so extremely novel that growers representing 100% of the district openly praise the shipping organizations of an important industry that I want to have you hear the following letter dated November 4th, which was signed by the Growers' Committee of Redlands, and which was sent to each of the

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Tung-Oil a New Crop for the South

By J. Francis Cooper, Florida Agricultural Experiment Station

The Office of Foreign Seed and Plant Introduction of the United States Department of Agriculture has introduced many thousands of new plants into the United States in their efforts for American farmers. One of the most interesting of these is the Chinese wood-oil or tung-oil tree. This tree, a native of China which was introduced in the United States in 1905, gives promise of becoming an important farm crop in certain States, particularly northern Florida, southern Georgia, Alabama, Mississippi, and Louisiana. It was first planted on the farms of the Florida Experiment Station at Gainesville in 1912, and out of all the places in which it has been tried, seems to give most encouraging results around Gainesville and in the other sections mentioned above.

That section of central Florida around Gainesville has been badly in need of a staple money crop since the coming of the boll weevil drove out the one on which it formerly depended—Sea Island cotton. Other parts of the Gulf states where the tung-oil tree seems to be adapted have been endeavoring to find an additional money crop to supplement cotton. Thus it is that the tung-oil tree seems destined to fill a long-felt want in the agriculture of these areas.

However, the farmers and others interested in agricultural development are no more anxious to see the industry succeed than is the paint and varnish industry, which industry consumes great quantities of tung-oil each year. A profitable market for the product is assured. The only question mark by the side of this industry in the southern states is: Will the trees grow here and produce profitably on a commercial scale? Present indications are very encouraging.

The tung-oil tree is a straggly-growing deciduous tree, the leaves of which are large, dark green, and more or less heart-shaped, often with three lobes. It grows to a circumference of from 10 to 12 inches and a height of from 10 to 30 feet.

The tung-oil tree is propagated by planting the seed. Budding work has also been done with success at the Florida Experiment Station, in an effort to rapidly and accurately propagate certain trees that bear fruits

The Citrus Industry has been requested by some of its readers to print some information in regard to the growth of Tung oil trees and the production of tung oil. While The Citrus Industry does not believe that the growing of tung oil trees will become general among the citrus growers of the better producing sections, it is possible that the tung oil industry may become a secondary crop with growers in some isolated sections of the "citrus belt" and this reason we are glad to reproduce here this authoritative paper by Mr. Cooper.—Editor.

in clusters instead of singly, and as a result bear much more fruit. It may be possible also that strains having a large number of seed in each fruit will be developed and propagated in the course of a few years as further work is done.

Cultural practices adapted to the tung-oil are very similar to those suited to oranges and other citrus. The trees require a non-lime soil and good drainage. Fertilization and cultivation give good returns. The American Tung-Oil Corporation has found it advisable to plant winter cover crops of grain and summer cover crops of a legume in the groves. A very promising summer cover crop has recently been introduced and is called crotalaria.

Tung oil fruit resembles an apple in outward appearance, but the interior is divided into sections, each of which contains a seed or "nut". The number of seed in each fruit varies from 5 to 15. Although the seed are not true nuts, they are generally spoken of as nuts.

The fruits generally mature in October and November. Harvesting of tung-oil nuts is probably the simplest of any major farm crop harvested by man. The fruits are allowed to mature and fall to the ground, where they may be gathered at once and stored or may be allowed to lie for weeks and even months and then gathered. After being allowed to lie for several weeks the outer husk is easier to pull off and free the seed.

From the seed is expressed an oil

known as tung-oil or wood-oil, and it is this that makes the tree valuable. This tung-oil, which is one of the best drying oils known, is used in large quantities in the manufacture of paints and varnishes waterproof and reduces their liability to crack. It is said that waterproof varnishes cannot be made without tung-oil.

Tung-oil is used in America in tremendous quantities, and heretofore the only source of supply has been China. However, the Chinese methods of extraction are crude, producing a low quality oil, and this oil is often adulterated before it is shipped. It is also beset with heavy tax burdens.

These factors combine to make China a rather unsatisfactory source of supply. This has caused American paint and varnish manufacturers to endeavor to establish the industry in this country, where modern machinery can be used for extracting the oil and a high quality product obtained.

In fact, the paint and varnish industry is spending thousands of dollars and taking the lead in developing the industry in northern Florida and other coast sections of the gulf states. The American Tung-Oil Corporation, a Florida company owned largely by men connected with the paint and varnish industry, has a 300-acre planting of tung-oil trees near Gainesville, Fla., that are now two years old. The Alachua Tung-Oil Company, also a Florida company, and headed by a paint and varnish manufacturer, has a 700-acre planting near Gainesville. Other plantings in the vicinity bring the total acreage to about 1,200 acres.

Experimental plantings have been made on the grounds of the Florida Experiment Station at Gainesville, and it is here that some of the best long-time records are available. These records indicate a strong possibility that the tree may be grown in this section with a reasonable amount of success, to say the least. A preliminary report by Dr. Wilmon Newell, director of the Florida Experiment Station, issued in May, 1924, has the following to say in part about the possibilities:

"It is said that trees in China attain a height of from 10 to 30 feet, and the trunks a diameter of from 6 to 10 inches, and that they commence

to bear when three to six years old, yielding from 30 to 40 pounds of seed to the tree annually.

"As trees 12 years old, on the Experiment Station grounds at Gainesville, have reached nearly the maximum height just given and have in some instances attained a trunk diameter greater than that given above, it would appear that conditions in the vicinity of Gainesville are at least as favorable to the tree as are those of its native home. This is further borne out by the fact that in 1923 one of the Gainesville trees produced a crop of 63 pounds of seed (husked nuts) and the average production of 10 trees was 18½ lbs."

The tung-oil tree seems to be able to grow and develop with very little attention, but will repay a little cultural care. The plantings of the American Tung-Oil Corporation and Alachua Tung-Oil Company are well cultivated, fertilized and cared for each year. As a result many of their trees, which are just two years old, have produced a small crop of nuts, and officials in charge of the work confidentially expect them to produce well at three years of age and to reach full production at four years of age.

Julean Arnold, American Commercial Attache at Peking, China, recently made a tour of the tung-oil producing section of the South, particularly in Florida, and was deeply impressed with the possibilities of the industry in this section. He says that he sees no good reason why America should not only produce enough tung-oil for her own consumption, but should also be able to fill part of a growing European demand for this product.

Speaking before the American Paint and Varnish Associations at Cleveland, October 19, 1925, Mr. Arnold said:

"I am pleased to tell you that I was very agreeably surprised at the successful results of the American Tung-Oil Corporation's work in northern Florida. I found the trees, already planted in a very healthful condition, and so far as I am aware, in better condition than similar aged trees in China. I am told by Mr. Henry A. Gardner, executive manager of the Corporation . . . That an acre is capable of growing on the average 116 trees. The best individual trees at the University of Florida's Experiment Station, which are eight years old, produce three gallons of oil per tree. Thus a very conservative estimate of the average production per tree at the time of maximum production should be one gallon of oil, which at present is estimated at

a value of about \$1.20. Allowing 15 per cent for the crushing of the nuts, one tree should possibly realize an average of \$1.00. Thus one acre of eight-year-old trees should gross from \$100 to \$300 per acre. Undoubtedly trees four years old, if in good condition and producing well, should possibly net about \$50 per acre. It appears that the trees require comparatively little cultivation. It also appears that they are remarkably free from pests or parasites.

"While trees in northern Florida have done exceptionally well, it has been found that trees in lower Mississippi and lower Louisiana, around the Gulf section, have also done remarkably well because of the modifying influences of the temperature of the region near that Gulf, the soil conditions, etc. Furthermore, it is believed that trees grown in the extreme lower portion of Georgia would thrive. In view of the above, it is probable that further extension of the tung-oil industry should be in these sections because of the lower cost of land.

"The wood-oil interests in China have been led to believe that climatic and soil conditions in the United States are not favorable for the growing of these trees, and that American labor costs in handling the nuts are so high as to militate against the success of the industry. It has been demonstrated by work thus far carried out that the soil and climatic conditions in certain sections of the South are all that could be desired. As the nuts fall from the trees during the autumn and may remain on the ground several months before deteriorating, the labor costs in gathering the nuts are comparatively low and not a factor of serious consequences. It has already been demonstrated that through scientific methods on the part of American growers and producers in handling the nuts a superior grade of oil can be produced in this country commanding a higher market value than the oil as produced in China. Thus there appears to be no reason for apprehension as to the possible success of the industry in the United States.

"Our importations from China now aggregate in value about \$15,000,000 a year. They are on the increase, and it would seem that it may be expected that within another 10 years the quantity consumed by our paint and varnish manufacturers in this country may reach \$20,000,000 or \$25,000,000. Thus the prospects are at present bright for the development of a new industry in this country which may mean an added economic value of from \$20,000,000

to \$25,000,000 annually.

"What I saw of the industry as thus far developed here convinces me that . . . , in spite of lower economic conditions in China, the growing of tung-oil trees in America can be made a profitable venture. . ."

It cannot yet be said with certainty that tung-oil trees will grow profitably in this section, but every evidence seems to indicate that they will.

SCIENTISTS FIND FLORIDA'S SUNSHINE HAS VIOLET RAYS TO INCREASE SPAN OF LIFE

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important elements upon which the body is dependent for its defense against starvation and disease.

Foremost in all the list, according to Dr. Clapp, are oranges and lemons, which are coming to be regarded in medical thought as the two most valuable fruits ever given to the human race. It requires a year of brilliant sunshine to perfect the chemistry of an orange and it absorbs to an unexcelled degree, the power to stimulate these glands. It supplies not only the calcium which the body needs, but other things of importance.

Benefits in Vegetables

The vegetable crops in which Florida excels, lettuce, cabbage, celery, peppers, spinach, cucumbers, reach northern markets at a period of the year when few other sections of the country are in a position to ship vegetables which have imprisoned the effect of the short violet rays.

Much has been said about the values of Florida sunshine to people of middle age who come here in the winter time. But it has not been said with sufficient clearness, he declared. During the winter, in the north, the ultra violet rays are practically absent and could be had from nature only under very unusual conditions.

This explains, at least in part he declared, why so many men who came to Florida 20 or 30 years ago to die, are now among the most active and busy citizens.

A paragrapher says: "Soils, like tools, wear out; they must be renewed." This is not a very good comparison, for soils, unlike tools, can be kept from wearing out while in use. If given proper fertilizers, soil building crops, and cultural practices, soils are like the human body—they are kept constantly renewed while in use for a long time. The old idea was that soils wear out and must be replaced by new areas being cleared up. This idea is no longer considered best.—Spuds Johnson.

THE GROWERS' OWN PAGE

THE GREEN FRUIT LAW

St. Petersburg, Fla., Nov. 20, 1926
The Citrus Industry,
Tampa, Fla.

Gentlemen:

Enclosed please find one dollar (currency), for which please extend my subscription to The Citrus Industry one year.

The information and education I get from The Citrus Industry is invaluable to me and worth many times the subscription price. Advertisers should give you wholehearted support.

Your editorial "Strengthen Green Fruit Law" is timely but not complete. The date for the operation of this law should be set up to Nov. 30th making the "open season" begin not prior to Dec. 1st, giving Thanksgiving day fruit markets a chance to clean up. You know as well as I do that a lot of immature fruit is going to be shipped in a few days. At Seffner we have eight thousand boxes of fine seedling fruit on the trees. A few days ago I spent a whole day looking it over and found at least 3 to 5 cars of fine, LARGE, bright, well colored fruit that I could have gotten off (shipped) by the 19th and 20th of November, but by the time it would SAFELY have reached the market "open season" quotations from Florida would very likely have caused a break. As C. L. Brown in his article states, the only real competition oranges has is oranges. He might have added "and the mental attitude of the marketing agencies' salesmen"; we growers are absolutely in their hands.

We got caught last year in the after Thanksgiving open season slump. This year we are letting our \$4.50—\$5.00 fruit hang on the trees, it is really fine stuff, but we're afraid of the 87—88 cents we got last year. This condition is so unnecessary and unwarranted that it is really worse than discouraging, its disgusting. The marketing agencies of this state are not big enough or broad enough to realize their responsibilities to the growers by getting together through the Fruitman's Club or in some other manner and setting a proper and fair price on the merchandise they have for sale.

Cooperative marketing under big, able management, would largely correct 75% of our ills, but where is the Moses to lead us? Some day he

This department is devoted to the growers, for their use in giving expression to their views and a discussion of growers' problems. Any grower is welcome to make use of this department for the discussion of topics of interest. The only requirements are that the articles must be on some subject of general interest, must be reasonably short and must be free from personalities. The editor assumes no responsibility for views expressed, nor does publication imply endorsement of the conclusions presented.

will be found. I am one of the "sinners", having been in and out of the Florida Citrus Exchange three times. The management was narrow, selfish and shortsighted; controlled by "late fruit interests" who used we seedling birds to build up their market. However the principles of cooperative marketing remains unchanged and is sound. That being true and as we fool growers seem to be unable to cooperate or find our Moses, the next best bet and more possible of attainment, is the cooperation of all the marketing agencies through their salesmen supported and strengthened by ironclad, copper-riveted agreements carrying monetary penalties for the violation thereof.

There are dozens of ways to avoid the so-called anti-trust laws, you can drive a 20 mule borax team through it. Ways and means can and will be found to accomplish much for the growers just as soon as the marketing agencies, realizing their power over the growers, adopt a proper policy of honesty and fairness toward them and begin to display a sufficient amount of enthusiasm, energy and ability to the end of greater control over the price of the fruit they sell.

The buying power of the American Public is increasing, has increased 100% more than our fruit crop during the last decade but barring freezes, hurricanes, or similar disturbances, we will have caught up within five years, then what? Is it not time the situation should be gotten in hand? Surely there is enough brains and ability within the ranks of the marketing agencies to solve the problem. If not, God help the growers because disaster awaits them a short way ahead. In starting this letter I had only intended to refer to the editorial previously mentioned but with it is interwoven the so-called marketing problem.

Commissioner Mayo states the Temple orange, Tangerine and none of the Mandarin group come under

the provisions of the Green Fruit Law. He further states he has had several inquiries in regard to the Temple, no doubt from some fool growers who wanted to ship them at this time. On noting this I examined my Temples, topworked five years ago on old sour orange trees, and they were as unedible and as green as a Valencia.

In that the law will probably be amended to cover the spraying of green fruit to kill the acid, why not at the same time protect those growers who refuse to sell green satsumas, tangerines, temples etc., in fact why not make the law to cover ALL citrus fruits excepting those fruits that are sold as acid fruits, lemons, limes, limequats, etc? Growers, honest growers of these varieties and the consuming public as well as the market in general are entitled to the same protection as the growers of round oranges.

Hoping that I may have given you some "food for thought" and wishing The Citrus Industry well merited success I am
Very truly yours,

H. M. Pancoast.

LOOKS FOR BIG BUSINESS

Speaking of a new citrus packing house installed a short time ago at Frostproof, the News of that city says the plant, which is managed by B. B. Scarborough, is getting lined up for a big business this season. The establishment of this new plant gives the Frostproof district seven large and modern citrus packing plants. Six are located in the city and are ready to start the season. In the recently installed plant new and modern machinery has been placed, giving it a capacity of five cars a day. The Seaboard is putting in a siding to the plant and other improvements are being added which will make it one of the most modern plants of its kind in the Frostproof district. The News says Manager Scarborough states that his company has secured close to 60,000 boxes of fruit to handle during the present season. The company owning the new Frostproof plant is composed of some of the best business men in the city and they are not going to stop until they have a modern canning factory running in connection with their packing plant, the News says.

CITRUS COMMENTS

BY

**R. E. Lenfest, Manager Horticultural Department
Orange County Citrus Sub-Exchange, Orlando**

Fertilizing Citrus

There are two main reasons for applying fertilizer to citrus trees. One is for the purpose of producing tree growth and the other is in the production of fruit. At the same time there are two main classes of citrus trees, the young or non-bearing trees and the older trees of bearing age.

In fertilizing young trees the first consideration is in developing a vigorous yet healthy tree growth while in fertilizing the bearing trees the tree growth is important for it must be just as healthy as in the young tree although not so vigorous and rank. In addition to making growth the older trees must also produce the fruit crop. Thus in fertilizing the older trees the problem is more complicated than that of the younger ones. As far as possible the discussion of fertilizing young trees will be handled separately from the bearing trees.

Before going further it might be well to mention briefly the sources of plant food commonly used in citrus fertilizers. The inorganic ammonia (nitrogen) is derived chiefly from nitrate of soda and sulphate of ammonia. Of the organic sources of ammonia (nitrogen) the principle ones used are as follows: raw bone meal, steamed bone meal, goat manure, cotton seed meal, castor pomace or meal, tobacco stems and dust, tankage of various kinds, dried blood and fish scrap. There are other sources of organic ammonia (nitrogen) but they are not often listed on the fertilizer tags in this section of the country. Some of the above organic sources also furnish phosphoric acid or potash as will be mentioned later.

The sources of phosphoric acid are acid phosphate, raw bone meal, natural phosphates, either treated by some special process or simply ground, and some of the organic sources which carry only a small amount of phosphate. Of these the chief source used is acid phosphate, generally shown on tags as super phosphate. There has probably been more discussion regarding the merits

of this material for citrus groves than regarding any other. Certain factions charge the acid phosphate with being very injurious to citrus trees and other crops. The fact remains, however, that a large percentage of the successful growers in the state have used acid phosphate as the chief source of phosphoric acid. Those who condemn acid phosphate hold that nothing but the organic type of phosphoric acid such as the bone meals should ever be used.

The work of the Florida Experiment Station as well as that of many others throughout the country has shown acid phosphate to be the most profitable source of phosphoric acid. And further that the claims that it produces an acid soil are not well founded.

The value of such fertilizers as claim the use of nothing but organic phosphates lies not in the absence of acid phosphate but in the fact that several of the high quality organics are most excellent sources of ammonia (nitrogen).

The principle source of potash is sulphate of potash. Other sources in common use are tobacco stems, tobacco dust, cotton seed meal and castor pomace. Muriate of potash and kainit are sometimes used on citrus. Hardwood ashes are used as a special application but not in mixed goods.

Fertilizing Bearing Trees

Trees of this age must produce growth wood and bearing wood, both of which must be normal and healthy. When the bearing wood has bloomed and set a crop of fruit the fertilizer in addition to maintaining the growth of the tree must also do its share in developing and maturing the fruit so that it will be of good quality. Cultivation plays an important part as is pointed out under that heading.

Most bearing groves are fertilized three times a year, in the spring, in the summer and in the fall or early winter. There are some groves which are only fertilized twice, in winter and in summer. When the latter plan is producing satisfactory crops then it would hardly be advisable to make a change, but in general three appli-

cations per year have given the best results.

The applications will be taken up by seasons starting with spring. In the spring-fertilizer about 1-3 the ammonia should be from organic sources and the balance about equally divided between nitrate of soda and Sulphate of Ammonia.

The analysis for early or midseason oranges and for grapefruit with little or no fruit should be 3 to 4% ammonia, 8% phosphoric acid and 3 to 5% potash. On late oranges and grapefruit it probably would be well not to use more than 3% ammonia and to increase the potash up to 6 or 8%.

For the summer application the make-up of the ammonia should be about half of organic and half from inorganic sources. The analysis should be 2 to 3% of ammonia, about 8% phosphoric acid, and 6 to 8%, or possibly 10%, potash.

For the fall application the make-up of the ammonia for normal trees should be quite largely inorganic; from nitrate of soda and sulphate of ammonia. The analysis may be about like that used in the summer.

The seasonal conditions previous to each application must also be considered. When there has been a prolonged dry spell it is generally wise to reduce the amount of the next application slightly if the trees still show good color and vigor. On the other hand, following a period of excessive rains the amounts of fertilizer should be increased, particularly if the trees show any lack of color or vigor.

Dieback and Ammoniation

These general suggestions can be applied to both old and young trees. In case of dieback, first try to determine the possible causes such as, too heavy applications of high analysis fertilizer, applying fertilizer too close to the trees, too intensive cultivation, poor drainage or lack of aeration of the soil.

Then apply bluestone according to the size of the trees, reduce the amount of fertilizer applied and what is used spread evenly over the extent covered by the roots.

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GROVE CALENDAR FOR DECEMBER

Timely Suggestions For Grove Work During the Present Month

Set trees from nursery to grove.
Be sure to head back planted trees to from 14 to 16 inches.
Bank trees well as soon as planted.
Spray peaches, pears and plums with lime-sulphur (1 to 8) to kill San Jose scale.
Pick up and burn all pecan twigs cut off by girdlers.

WHAT'S WRONG WITH THE MARKET?

There is something radically wrong with the citrus fruit market—particularly as regards Florida citrus fruits—of this everyone in any way connected with the industry is not only ready to concede, but is prepared to shout aloud from the housetops. With California oranges outselling Florida oranges on the auction markets by from \$1.75 to \$2.00 per box, the fact that Florida growers are being deprived of the major portion of their just returns on a short crop are very patent. Nor is the reason far to reach.

True, Florida citrus fruits, due to seasonal conditions, have not as yet attained their highest degree of perfection, but even so, they do compare favorably with citrus fruits available from other sources. The whole trouble is that Florida citrus fruits are being dumped onto the markets in quantities which would be justified only by a "bumper" crop, in spite of the fact that the season's crop is far below normal and much less than the crop of a year ago. Yet, in the face of this shortage, the shipments of Florida fruits for the week ending December 4, ex-

ceeded the shipments of a year ago by substantially 350 cars, with the result that the average price at auction markets slumped approximately 80 cents per box. Only the fact that California shipped nearly 200 cars less than a year ago saved the market from a still further decline.

With a short crop and a lively demand for citrus, there is every reason why this year's crop should bring top prices throughout the season. With orderly distribution, such prices would prevail. And why are we not getting such orderly distribution? As one contributor to The Citrus Industry this month says, it is because the "marketing agencies of the state are not big enough and broad enough to get together through the Fruitmen's Club or some other agency" and control the situation. Another contributor, the salesmanager of a prominent marketing agency says: "The Fruitmen's Club has gone a long way towards influencing and steadying the shipments from week to week, but it is without authority and still without the strong pressure it is entitled to".

These two statements, one from a grower, the other from a marketing agency, agree in placing the responsibility where it belongs—on the marketing agencies. True, the greater number of the agencies, controlling by far the greater portion of the fruit, seem to be honestly endeavoring to control the situation, but without success, because, as pointed out above, the Fruitmen's Club has not the authority to enforce any rule which an irresponsible or recalcitrant grower or shipper may feel disposed to disregard. Both agree, too, that the Fruitmen's Club is the proper agency through which to effectively control shipments and through such control to exercise a most beneficial effect upon prices.

The Fruitmen's Club is the one organization in the state at the present time which is in position to handle the matter with any degree of efficiency. Having within its membership, control of probably eighty per cent or more of the Florida citrus crop, the members of the Club have it within their power to delegate to the officers and directors of the Club such authority as may be needed to enforce such rules regarding shipments and distribution as the members themselves may agree upon as being essential to the welfare of the industry—which means simply their own best interests. If the growers and shippers now members of the Fruitmen's Club will delegate such authority to the officers of the Club, and back them up in their enforcement of accepted rules, excessive shipments and glutted markets will speedily end.

The industry in Florida at this time needs two things vital to the success of the citrus grower:

First—A revised and strengthened green fruit law, covering all citrus fruit, imposing penalties for treating fruit to kill the acid, and extending the date of inspection, and

Second—Action by the members of the Fruitmen's Club giving the officers authority to supervise and control distribution of fruit to the end that orderly distribution may be effectively enforced.

It is not enough that a few marketing agencies are trying to control their own shipments

and judiciously distribute their shipments. ALL agencies must join hands to make the movement effective, and the Fruitmen's Club is the only organization which can wield an effective weapon of defense in behalf of the growers and its own members. If the marketing agencies fail to meet the situation squarely and effectively, it will be so much the worse not only for the industry and the grower, but also for the marketing agencies. It is to be hoped that the agencies may be wise enough to recognize the truth of this statement, and that they will unite in exercising their influence toward remedying conditions through effective control of distribution.

NEED OF NATIONAL ORGANIZATION

There is growing need of a national organization of citrus growers and shippers. The industry has outgrown state lines and has become national in scope, but unfortunately few growers and shippers have been able to recognize the fact. For the most part we are still endeavoring to carry on along state lines, frequently along purely local lines, not even recognizing the state as the unit. The result is that we are handicapped at the outset by local or state jealousies and by factional differences.

There is entirely too much disposition in Florida to decry California fruit, and altogether too much tendency in California to belittle Florida fruit, while both Florida and California are disposed to ignore Texas as a citrus producing section. We are so busy trying to divert attention from our state rivals that we neglect all too often to do those things which might benefit the industry as a whole and bring greater profits to the growers not only of all sections of one state, but of all sections of all the citrus producing states.

As growers and shippers of citrus fruits we might well take a lesson from the banana growers, or the apple growers, or the rice or bean growers, the cotton growers and the producers of fish, all of whom have their national organizations for the advancement of their respective industries. True, many of these industries have also their local and state organizations, but they are subsidiary to the national bodies. sooner or later, the citrus growers and shippers, too, must have their great national organization, a central body to which the various local and state organizations will be secondary.

With the increasing production of citrus fruits in Florida and California, and the promise of wonderfully increased production in the Texas field, it will not be long until citrus producers of each of these states must bend their efforts toward the increased consumption of citrus fruits, purely as citrus, regardless of its place of origin. Within the next five years, too, the question of orderly distribution of citrus fruits will become even more of a problem than it is today. It will by that time have outgrown state lines and become a national problem which can be handled only by a national organization. Fortunately for the growers, the seasonal periods of ripening in the several citrus producing states are such that a national organization operating intelligently, can so equalize distribution as to keep all markets sup-

plied at all seasons without overcrowding or glutting any market at any time. In the development of this feature of common interest, a national organization would find its greatest helpfulness for the growers of all the states.

As long ago as 1920, The Citrus Industry began the advocacy of a national citrus organization. That the idea is beginning to take root is evidenced by a recent letter from a prominent California citrus factor and by a later personal interview with a representative of one of the leading citrus organizations of Florida. Texas growers have evinced a desire for such an organization and could be counted upon to render first aid in its launching. The Citrus Industry believes that steps looking toward such a national organization should be taken by the growers of Florida, California, Texas and Arizona without delay.

One reason, and probably the greatest reason, why California oranges are bringing a higher price on the auction markets than Florida oranges, is that the California fruit LOOKS the best. The buyer does not SEE the juice inside. Moral—Florida growers should make their fruit LOOK as good as it tastes. This can be done only by fighting the bugs and eradicating the pests.

With an investment of from \$1,000 to \$3,000 per acre in his grove, it is an unwise grower who declines to invest a few additional dollars per acre in the necessary fertilizer to insure next year's crop.

It is just as important to supply plant food (fertilizers) for your trees, as it is to supply feed for your mule or gasoline for your motor. Neither can work without an adequate supply of the proper kind of food.

Perhaps one reason for the heavy shipments of citrus from Florida during the past few weeks is due to the feeling, as one shipper puts it, that "it is time to go". In other words, growers and shippers have felt that the fruit was ripe and should be rushed to market, regardless of the condition of the market. The result has been disastrous, as should have been foreseen.

The grower who produces fruit of quality and APPEARANCE can always depend upon disposing of his fruit at a profit, regardless of what may happen to fruit of poor quality and poor APPEARANCE. The cause of nine-tenths of the poor appearance is due to bugs. Fight the bugs.

The Rio Grande Valley of Texas is coming into its own as one of the leading citrus producing sections of the world. When fully developed, the Valley will play an important part in citrus production.

Everlasting vigilance is the price of freedom from the ravages of bugs. The grower who is constantly on the alert and who "swats" the pests on their first appearance, is the one who garners the highest profits.

Agriculture at the Florida State Fair

By J. Francis Cooper

Says the Florida Review: "President William McKinley, making his last public utterance just before he was shot down by the assassin at the Buffalo Fair in 1901, said: 'Fairs are the timekeepers of progress.' No truer statement ever has come from the lips of a statesman. We may truly take the measure of any locality by attending its fair."

So it is that the Florida State Fair at Jacksonville portrays the agricultural development and progress of a good part of the State of Florida. While the exhibits are largely from northern and western Florida, yet South Florida counties also were represented by very creditable exhibits, and the exhibits taken as a whole showed a very wide variety of products.

In fact it was a South Florida county—Palm Beach—that won first place in the county competition at the fair. Palm Beach County took five blue ribbons, establishing a record for the State Fair. This in spite of the September hurricane, which caused so much damage to the county's agriculture. County agents S. W. Hiatt and M. U. Mounts and home demonstration agent Mrs. Edith Y. Morgan and their co-workers deserve a great deal of credit for getting up their winning displays.

Miami and Dade County were represented with splendid exhibits, also, showing the rapidity with which the agriculture of the East Coast section of the state has recovered from the effects of the storm.

Duval County got out in front with its pecans, winning the blue ribbon over Jefferson by a narrow margin. Pecans were one of the features of most of the county exhibits and several of the individual and community exhibits.

Also Duval County's representation of Florida's egg-basket was a unique and interesting way of calling attention to the importance of the poultry industry of the county.

Taylor County gave the best of them of some keen competition, taking several blue ribbons and many reds. This county had a good general exhibit, illustrating particularly the food and feed crops which are grown in the county.

When it comes to hogs and home cured meat products, Madison County is without peer in the state. Of

the 210 hogs in the swine show, 125 were from Madison County. And a Madison County club boy, Russell Henderson, who has become a rather consistent winner in hog exhibits, won grand championship on his Duroc sow in the open competition, defeating breeders of this and other states. It is the first time a club boy's hog has been awarded a grand championship in the open classes, and, as Russell says, it is something he has been working for for four years. It is worthy effort well rewarded.

Several club boys were at the fair during the entire time, guests of the Fair Association, and helping to care for the livestock which was on display.

The livestock exhibit, other than hogs, was as usual rather short. One thing that cannot fail to be noted about these livestock exhibits at the State Fair is the scarcity of Florida herds on show. With the exception of the cattle exhibits by Milam of Miami and Pennock of Jupiter, Florida exhibitors were hard to find in the livestock classes. However, be it said for the credit of these two exhibitors that their animals on display were real quality stuff.

Getting back to county exhibits, there were many good ones up and down the line. Leon County had a good general exhibit, the corn with the placard stating that a Leon County man had produced 510 bushels on five acres in 1926 being especially interesting. Leon furnished competition in the club swine classes.

Jefferson, Union, Clay, Baker, Levy, and Calhoun counties all had very creditable exhibits. It is to be hoped that they will be joined by a larger number another year.

The Boys' Club exhibit stressed the economic aspect of boys' club work in the state. Piles of corn, cotton, potatoes, etc., were used to illustrate the fact that the average production per acre obtained by club boys is from two to four times the average for the state in each crop.

The State Home Demonstration exhibit can usually be depended on to show some new ideas, as well as a first class array of products. It didn't have to be just about dinner time for a man who had not had any breakfast to make the canned goods, preserves, etc., on display look ap-

pealing.

Mrs. Never Well's medicine chest, as compared with Mrs. Ever Well's chest alongside, was an effective way of showing the value of vegetables, fruits, cereals, etc., in taking the place of pills, compounds, and patent medicines for keying up one's health.

BRIEFS FILED IN RATE CASE

Copies of the Brief of the Growers and Shippers League of Florida, filed by Mr. C. R. Marshall of Washington, D. C., acting as attorney for the League and for the Railroad Commission of Florida in their Line Haul Rate Case, have been received by Secretary J. Curtis Robinson.

The Brief consists of 260 pages with 14 appendices or graphs which are extremely illuminating. The League by their evidence and in their brief have recommended to the Commission that the present combination basis of rates on Florida citrus fruit and vegetables be condemned, and that the Commission shall approve a basis for the future as recommended by the League, after most pains-taking and comprehensive study had been made of the present rate structure. The nature of the rate structure recommended for the future is thought to be best adapted to the needs of the Florida shippers.

The League has recommended maximum rates to be applied to so-called border points in official classification, central classification and New England Territory. They have also asked for maximum rates to be applied to intermediate western classification territory, containing Wisconsin, Minnesota, Missouri River Cities and parts of Oklahoma, Arkansas, Louisiana, and Texas common points, and also rates to far western points. They have recommended rates to Virginia Cities, Ohio River and Mississippi River cities with a system of graded rates from the representative Florida shipping points to destinations in southern and Mississippi Valley territory subject to the rates at further distant border points as a maximum.

They propose to increase the minimum on citrus fruit from 300 to 360 boxes and the minimum on vegetables N. O. S. from 400 to 420 and on

tomatoes from 400 to 448.

The brief contains 15 pages summarizing the findings of facts which the complainants believe the record justifies the commission to find and consider in forming its conclusions.

There are many interesting references, among which are:

That the grapefruit plantings from 1916 to 1923 increased 73% and orange plantings about 92%. That Florida ranks first among all southern state in the production of citrus, celery and tomatoes and in 1923 produced 96% of the grapefruit, about 38% of the celery and about 41% of the tomatoes produced in the United States.

That the present through rates are approximately 50% higher than the old through rates.

That the production and shipment of vegetables and citrus fruit from Florida has greatly increased in volume in the last few years.

That the average loading of citrus fruit per car has increased from 215 boxes in 1908 and 10 to 360 boxes at the present time.

That the carload shipments of citrus fruit has increased 57% over 1921.

That on an average of 57 cars of citrus fruit per train at the present rates from Jacksonville to New York the revenue per train would be \$14,158.80 which on the basis of 1019 miles yields a train mile revenue of \$13.89 as compared with train mile revenue of \$4.74 in 1910.

The complainants contend that the present method of making rates on Jacksonville combination to and from the Florida peninsula is merely an arbitrary device for enhancing revenue. The device may have been justified in the early stages of the agricultural and industrial development of Florida, but no sufficient justification has been shown for it even in the modified form now proposed by the carriers under present day conditions. The contention is made that the present rate structure of rates on fruits and vegetables from Florida is a hybrid. Its injustice and repressive influence have long rested with painful effect upon the agricultural and industrial enterprise of Florida. Whatever shadow of excuse there may once have been for tolerating the present basis has long since vanished.

Let us develop the resources of our land, call forth its powers, promote all its great interests, to see whether we also, in our day and generation, may not perform something to be remembered.—Daniel Webster.

"We Will Begin Again, My Dear"

Reprinted from Manufacturers Record

In "The Battle Ground" Miss Glasgow told with intense vividness of the appalling poverty which reigned throughout the South when the Confederate soldier, footsore and weary, sick at heart and weak in body, returned to his home. As he looked over the devastated fields, the destroyed fences, the wreck and ruin of what had been his home, the beloved wife met him, and with all the intensity of a woman's nature breathed into him the breath of new life and new activity when she said, "We will begin again, my dear."

In all the annals of human history there is no record of more sublime heroism than that of the men and women who in 1865 took up the task of rebuilding their almost completely destroyed section, of restoring government and of bringing back prosperity to a country over which the pall of poverty had rested in a darkness unequalled in Europe at the close of the World War.

"We will begin again, my dear" gave inspiration to the men of the South to forget their losses, to throw their very soul and body and brain into the work of once more fighting a battle—a battle against poverty calling for more bravery, more heroism, more untiring grit than any dangers they had faced before the cannons and the rifles that brought death to so many between 1861 and 1865.

In the light of what men and women of that day endured and what they accomplished in bringing prosperity to the South the disadvantages under which the South now labors by reason of a lower price of cotton than was expected are so triflingly small that the people of this section who have been pessimistic should bow their heads in shame that they are not proving worthy sons of the worthy sires of 1861 to 1865.

What a marvelous record the South of that day made! How it started the revival of agriculture without capital or livestock! How it soon began the building of furnaces and mills and the opening of coal mines! How it immediately began a great educational campaign, and out of its poverty gave freely to the maintenance of churches and the establishment of schools!

The men and women of that day were of heroic mold. Tried in the fire, they came out of the furnace without the smell of smoke upon them. There was no cringing. There was no plea for help. Following the thousands of Bettys who voiced unto their loved ones the spirit of Miss Glasgow's Betty, they taught themselves how to live at home, how to produce at home the vegetables and other foodstuffs which they needed. They taught to themselves and to their fellow-workers the glorious strength born of optimism, of initiative, of self-reliance and of a moral backbone unbendable under any afflictions. They were men and women of giant mold, mentally and spiritually.

In contrast with what they endured and what they accomplished, every pessimist in the South of today, every grumbler against conditions, should realize that he has fallen short of the standard set by the men and women who redeemed the South from the poverty of 1865; who asked no help from the Federal Government, no help from legislation, but only the right to work, and to keep on working.

Further Activities of Growers and Shippers League

The Horticulturists and Agriculturists of our State who are familiar with the work being done for these industries along traffic lines are high in their praise of the Growers and Shippers League of Florida, a state wide organization, with headquarters at Orlando.

All the larger shippers of citrus and many large vegetable shippers are members.

The approval and appreciation of the work the League has been doing for the fruit and vegetable industry has been voiced by several County and City Chambers of Commerce. Resolutions commending the work of the League have been passed by The Orange and Seminole County Chambers of Commerce and the local Chambers of Commerce of Sanford, Orlando, Eustis, Winter Garden, DeLand, and Ft. Pierce.

Since its organization in 1923, it has handled hundreds of questions involving transportation rates, rules and regulations affecting cost of transportation and distribution of Florida agricultural and horticultural products and have saved thousands of dollars for these industries. Its members are enthusiastic over its accomplishments and are anxious that all shippers may unite in its support, thereby making possible a continuance of the good work the League is doing.

The following are some of the League's Activities during the month of November:

Secretary conferred with Counsel in Washington, D. C. relative to Brief in Line Haul Rate Case.

Appeared on October 26th before Suspension Board of the Interstate Commerce Commission, Washington, D. C., in behalf of the Fruitman's Club and members of the Growers and Shippers League and expressed our approval of the privilege for holding citrus fruit in Jersey City proposed by the Pennsylvania Railway Company.

Filed a letter with the Suspension Board outlining an argument in behalf of the hold privilege of citrus fruit at Jersey City.

Wired Fruitman's Club from Washington, D. C. of necessity of immediate approval by them of Pennsylvania's proposal for holding citrus fruit in Jersey City in order to defeat request of certain receivers in

New York that tariff should be suspended.

As result of conference with suspension board in Washington and telegrams from Fruitman's Club the Pennsylvania tariff providing for holding of citrus fruit in Jersey City was made effective November 1st.

Filed protest with Southern Freight Association, October 30, against proposed joint vegetable tariff to be issued by Agent Glenn after it was offered as evidence in Line Haul Case, also contains objectionable rules.

Filed request for suspension of supplements to Florida Orange Pineapple Tariff 52, Eastbound Vegetable Tariff 18, and Florida Basis Book no. 17, which eliminated routing from and to points on CH&N via Achan and ACL and thereafter restricting routing via Seaboard Air Line Railway.

November 15th received advice from Southern Freight Assn., Submitted 27882, Docket 321, that basis proposing combination rates on celery to Western Trunk Line Territory beyond Metropolis and Cincinnati would be held in abeyance.

Assisted in securing amendment to Paragraph D, Rule 240, Dearborn's Tariff No. 3, whereby cars originally iced, billed "Do not re-ice", and later placed under standard refrigeration, rates from points of origin to destinations.

On November 22nd, attended conference in Atlanta and protested proposal of southern car icers to cancel present joint through rates between Pacific Coast points and points in Florida south of the Seaboard Air Line Railway, Jacksonville fresh fruits and vegetables paper wrappers, etc.

Notified many Chambers of Commerce in in-land Florida of the proposed effect of the cancellation of joint through rates between Pacific Coast points and in-land Florida, T. C. F. B. Docket 7369.

Notified interested shippers of proposed cancellation of Packing in Transit at Eustis, Florida of Citrus fruit originating at Sanford and Orlando. Southern Freight Association, Docket 341, Submittal 30299.

November 19th Secretary spoke before the Sanford Chamber of Commerce of the work of the League. Secretary called on various members

in Sanford and DeLand territory.

Checked and analyzed a large number of proposals or submittals on various dockets of Southern Freight Association affecting transportation of citrus fruit and vegetables.

Prepared tentative copy of By-laws for adoption at annual meeting in December.

Issued notices to members of action of the Executive Committee in advancing dues for membership in the League.

Secretary spoke before the Directors of the Orange County Chamber of Commerce regarding the work of the League.

Resolutions endorsing the work of the Growers and Shippers League of Florida have been received from the Seminole and Orange County Chambers of Commerce, Sanford, Orlando, Eustis, Winter Garden, Ft. Pierce, and DeLand Chambers of Commerce.

ORANGE FESTIVAL WINS ENDORSEMENT BY TRADE BOARDS

Endorsement of the Polk county citrus festival was given by eight organizations of Polk county at the mid-week luncheon of the Winter Haven Chamber of Commerce. Representatives of the eight bodies attended the luncheon at the invitation of the booth committee.

Endorsement and promise of full cooperation was given by the following representatives; George H. Clements, secretary Bartow Chamber of Commerce; R. S. Hanford, secretary Fort Meade Chamber of Commerce; Dr. W. Harris, Highland City Chamber of Commerce; J. C. Long, secretary, and C. C. Gunn, vice president, Haines City Chamber of Commerce; C. E. Noyes, secretary Lake Wales Chamber of Commerce; W. G. Rossman, secretary Auburndale Chamber of Commerce; S. P. Shelhamer, vice president, and F. P. Goodman, director Lake Alfred Chamber of Commerce; W. C. Pederesen, secretary-manager Waverly Citrus Exchange.

OCCUPIES NEW OFFICE

The Atlantic & Gulf Fertilizer Company of Jacksonville, Florida, has just moved to their splendid new offices in the Barnett National Bank Building.

Refreshing Reading

Howey, Florida.

Nov. 13, 1926

Mr. S. L. Frisbie,
Editor of The Citrus Industry,
Tampa, Florida.

Dear Mr. Frisbie:

To the grove developer who strives ceaselessly for better fruit, brighter fruit, and fruits of rare high quality, your editorials and your editorial comment—in fact your entire magazine comes monthly as a refreshing thing.

I grow impatient with certain periodicals published in Florida that classes all developers and the fruits they produce in one aggregate conglomeration of scrub-stock and scrubby fruit.

This citrus section of the United States is forging ahead solely due to a few forward-looking individuals who know full well that if a thing is worth doing at all it is worth doing the right way. Florida is said to be the only state in the Union that can produce a steer that can completely hide himself behind a telephone pole. For years the State has wasted its time and energy plodding along in the old way of growing oranges, or rather, letting them grow.

There are, as I have intimated, men in the citrus industry of the State who know what they are about. They are not getting the assistance they so well deserve. I mean moral support. The reason, I verily believe, is because many of our influential men do not know the difference between a QUALITY orange and that of a scrub orange.

That is why I say it is devilish refreshing to read a citrus magazine that is dressed up and absolutely knows where it is going. You positively do deserve the united support of all worth while citrus growers in Florida—and all others directly interested in the industry.

Ray A. Frame.

NOTES OF THE TRADE

ATLANTIC AND GULF FERTILIZER COMPANY HAS MODEL MODERN PLANT

The plant of the Atlantic & Gulf Fertilizer Company, which was incorporated and built in April, 1925, is fireproof, being of steel and corrugated iron construction with a brick flooring.

The location could scarcely be more favorable for the unloading of raw materials and the distribution of the manufactured product. The docks at



Material Entering Plant on Endless Band

Commodore's Point are capable of accommodating ships of the very largest type. When a vessel docks for unloading of fertilizer for this Company, if it is in bags, trains made up of eight or ten dollies conveying ten or twelve tons of materials and

drawn by Fordson tractors rush their loads from the ship as fast as the slings can dump the bags on the dollies. If the material is in bulk, dump carts instead of the dollies are used and upon reaching the plant of the fertilizer company these are dumped in the elevator pit of the overhead belt conveyor. This overhead belt system can dump materials at any place in the large plant, by means of two trippers. The conveyor was made by H. W. Caldwell & Sons Co., and the belting by the Boston Woven Hose & Rubber Co.

For raw materials coming in bulk by rail the power shovel, manufactured by the Atlantic Utility Works is used. This important time saving machine drags the material from the car to the elevator pit, thence by belts to the overhead conveyor. A capacity car can be unloaded in this way easily in two hours, requiring only two laborers. The mixing units of the concern consists of two all-steel Stanford mixing outfits, with double bagging hoppers, manufactured by the Atlantic Utility Works, one on each lower side of the plant.

One unusual and outstanding feature of the Atlantic & Gulf Fertilizer Company's plant is the inside platforms. These platforms are of course contrary to usual custom, but they have proved so great an advantage that they will probably be generally adopted. Cars come up to the very doors of the building for unloading

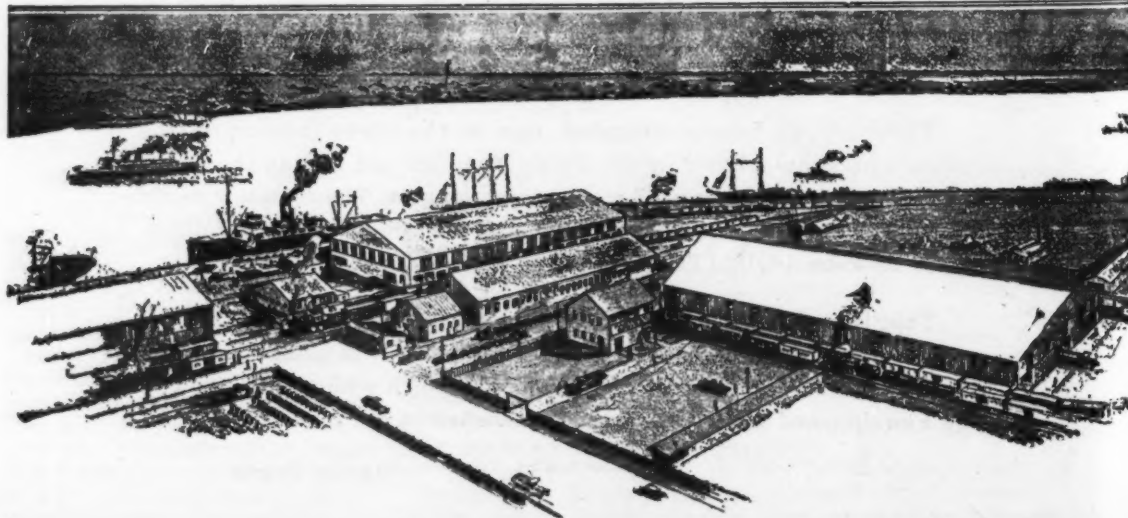
and loading. These inside platforms enable loading and unloading to be carried on without inconvenience in all sorts of weather, wet or dry, windy, hot or cold, and also prevents a great deal of waste.

The Atlantic & Gulf Fertilizer Company has approximately 3,000 feet of double railway track serving



View Showing Inside Platform

both sides of the building, thus permitting speedy unloading of raw materials and rapid dispatch of the finished product at the same time. The main building of the plant is 315 feet long, the annual capacity is 40,000 tons and the storage capacity 15,000 tons. The bags in which Atlantic & Gulf Fertilizer is packed are of particular interest because each bag has four ears instead of the usual two, permitting handling readily and



Atlantic & Gulf Fertilizer Company's Plant at Jacksonville

easily from any position.

Naturally a great deal of the Company's business is with the citrus growers, although a large volume is done with potato growers, truck growers and watermelon growers. Mr.



One of Several Mixing Machines

C. Nash Reid, president, originated and successfully launched the "Open Formula," "No Filler" method of putting out products which is used by the Atlantic & Gulf Company. By this system the purchaser knows the exact pounds of each material going into the mixture, and is saved the cost of freight, handling, etc., of worthless material which has no plant food value. Mr. A. E. Barker is Sec.-Asst.

THE CITRUS INDUSTRY

Treas., and Mr. A. H. Garrett, Factory Superintendent.

FRUIT GROWERS FORM PROTECTIVE BODY

Nearly 2,000 acres of bearing groves in Indian River county were represented by owners who favored the organization of a mutual protective association at a meeting held at Vero Beach recently.

A temporary organization was formed and A. W. Young was elected chairman with Walter S. Buckingham, secretary. The purpose of the session was presented by Mr. Buckingham and its need was emphasized by Mr. Young.

With the passing of the period under which the fruit must be tested, it is believed that the menace to the growers will increase. Already complaints have come in from several localities that fruit has been stolen from the trees.

Those in attendance unanimously assented to an organization of an association to control the situation this season. A committee was appointed to draft a constitution and by-laws. It was composed of A. W. Young, W. S. Buckingham, L. H. Vinnedge, S. D. Gaines and Donald Forbes.

The committee immediately went into session and later reported as follows:

low:

The name of the organization to be Growers Protective Association of Indian River county.

The object of the organization to be for the mutual protection of the properties of its members against theft and fire.

Any owner of a farm or grove property or products, or his representative, may be a member of the association.

The officers of the association shall be a president, vice president, secretary and treasurer and an executive committee of five members. The executive committee is to be composed of the president, vice president, secretary and two members of the association.

The association shall from time to time offer suitable rewards for information leading to the arrest and conviction of persons stealing fruit, vegetables or other property from members of the association or for illegally starting fires.

The following poster will be placed in groves:

One hundred dollars reward will be paid by the Growers Protective Association of Indian River county for information leading to the arrest and conviction of any person or persons stealing fruit from this property."

At this Merry Yule Tide

we extend to the growers of the state our sincere best wishes for a
Merry Christmas and a most prosperous New Year.



"Quality Fertilizer for Quality Fruit"

Lyons fertilizer Company
TAMPA, FLORIDA

Big Citrus Fruit Deal is Closed in Vero Beach Section

What is said to be the biggest fruit deal ever consummated in that section has just been closed between the Vinnedge Farms Corporation of Vero Beach and the Acme Packing Co., of Gifford and White City.

Under the terms of the agreement the Acme Packing Co. contracted to purchase the entire crop from the former company's 100 acres of groves west of Vero Beach for the next five years at a price that is estimated will total \$3000,000.

According to L. H. Vinnedge, president of the grove corporation, the arrangements with the Acme Packing Co. is expected to net the corporation \$200,000 during the next five years, allowing \$100,000 of the gross income for maintaining the property during that period. The fruit will be paid for at a fixed price per box on the trees with a division of the net returns above a certain figure between the grove corporation and the packing company. At the estimated returns the property will yield 20 per cent on the original investment, Mr. Vinnedge says.

Additional Acreage

Arrangements are now being made by the Vinnedge Farms Corporation to prepare for planting an additional sixty-seven acres adjoining the present development to grapefruit, oranges and tangerines as rapidly as it can be done. This will bring its total holdings up to 167 acres.

M. Bacharach, head of the Acme Fruit Co., which is handling this year's crop is highly gratified at having been able to obtain control of the produce of this property for a long period. He states that the Vinnedge groves produce the finest quality of fruit that goes through his packing houses. The first car of grapefruit shipped this season brought an average price of \$7.75 per box in New York and ran 1 per cent russet fruit. No fruit smaller than 96s has been picked from the Vinnedge groves this season and the bulk of the crop is running 70s and larger.

The average age of the trees is 7 years. There are 6,380 of them, of varieties consisting of 2,300 Duncan and Marsh seedless grapefruit; 740 tangerines, and 3,340 Valencia, Pineapple and Parson Brown oranges. Thorough cultivation and careful spraying have kept the groves almost entirely free from scale, disease and insect pests.

Weather Protection

Owing to the fact that the groves are protected by heavy bamboo windbreaks no fruit was lost during the storms this fall and the season's crop is estimated at 9,000 boxes. Drainage and irrigation are so handled as to make the groves practically independent of weather conditions.

L. H. Vinnedge, controlling stockholder of the corporation, has applied

factory production principles to the development of the grove. Every tree is given individual attention to keep it at the highest point of efficiency.

Mrs. L. H. Vinnedge is vice president of the corporation, and George M. Willing secretary-treasurer. These with P. K. Shaner, of Greenburg, Pa., and A. H. Gairnes, of Chicago, district manager of the American Car & Foundry Co., constitute the board of directors. Officers of the American Car & Foundry Co., and friends of Mr. Vinnedge hold the T. Baird is grove superintendent.

Florida Growers Must Count on Competition

The Florida State Marketing Bureau, in their November 15th issue, Exchange Bulletin, bring to the attention of Florida growers the fact that they must count on competition.

"There is nothing which more vitally affects the marketing of the agricultural products of a state, or given section of country, than a competitive territory producing the same products at the same time. Florida is not an exception to this rule.

"Florida's average acreage of 6,074 acres of cabbage must go to market in competition with 19,334 acres from other states. The average acreage of 2,364 acres of Florida celery is sold in competition with 4,942 acres from California. The 7,146 acres of cucumbers must be marketed at the same time 6,948 acres of cucumbers from other states are seeking a market.

"The 3,134 acres of lettuce grown in Florida have the keenest kind of competition from more than three times as many acres in other states. The 7,657 acres of snap beans must go to market at the same time 10,673 acres are being shipped from competitive areas in other states.

"There are 5,492 acres of green peas in competitive areas seeking a market at the same time our 2,557 acres are being harvested.

"From February to May, 27,517 acres of Irish potatoes are going on the market at the same time we are selling 18,913 acres in Florida. And in June, 71,010 acres more compete with us.

"Our 21,433 acres of tomatoes offered to the trade from December to June compete with 10,576 acres in other states.

"Our strawberries compete with ten times as many acres elsewhere, and our watermelons with an acreage three times as great as ours. And other states sell twenty-five times as many canteloupes as we do at the same time we are marketing ours. As Florida only produces one-fourth of the citrus fruits of the world, our competition in the market is very strong. With steamships plying to and fro like shuttles laden with produce from every continent and the isles of the sea, and railroads, truck lines, and water transportation available in all competitive areas, Florida has no monopoly of trade, but with equality of grade and proper distribution of products, we have an equal chance with any section anywhere."

1884 CITRUS—VEGETABLES 1926

Chase & Company, Inc.
Growers Marketing Agents
Orlando, Florida

Our information service to the growers at large includes broadcasting the daily citrus auction index from the following radio stations. (except Sunday)

WOCB	Orlando	7:15 P M—293	Meters
WJAX	Jacksonville	7:45 P M—336	"
WDAE	Tampa	8:00 P M—273	"
WGHB	Clearwater	8:29 P M—266	"
WDBO	Winter Park	8:55 P M—240	"

The Brogdex System

- ¶ Reduces losses from Blue Mold Decay.
- ¶ Retards ageing, wilting, withering and shrinkage of Citrus Fruits.
- ¶ Makes icing unnecessary, thereby saving twenty-two cents per box.
- ¶ Gives better results than precooling with a much smaller initial investment.
- ¶ Keeps fruit so much better that consumer demand is increased.
- ¶ THE BROGDEX SYSTEM solves the problem of shipping fruit to Europe. California growers ship BROGDEX treated citrus to Japan.
- ¶ FLORIDA GROWERS can ship grapefruit from Tampa and Jacksonville to London and Paris.

ASK US FOR THE PROOF

Skinner Machinery Sales Co.

B. C. SKINNER, President
DUNEDIN, FLORIDA

The A & G Trade Mark on a bag of fertilizer is a guarantee that it contains highest-grade fertilizer put up by a firm which has gained its reputation by supplying only superior fertilizer manufactured from materials of the very best quality

OPEN FORMULA
NO FILLER
FERTILIZER



GENUINE PERUVIAN
GUANO AND
CITRUS BONE BASE
FERTILIZERS

"FIRST IN THE FIELD"

ATLANTIC AND GULF
FERTILIZER COMPANY
Jacksonville Florida.

WRITE TODAY FOR NEW ILLUSTRATED BOOK "FACTS ABOUT FERTILIZERS"

German Foreign Trade in Fresh Fruits

By Daniel J. Moriarty, Foodstuffs Division U. S. Department of Commerce

That Germany has again taken its place as one of the leading fruit-importing countries of the world is evidenced by the fact that in 1925 its total imports of fresh fruits amounted to 1,404,000,000 pounds, as against 1,215,000,000 pounds in 1924 and average yearly imports of 1,329,000,000 pounds in the five-year period 1909-1913.

Oranges Leading Fresh-Fruit Import in 1925

Oranges (including mandarins) led such imports in 1925, with apples a close second, and grapes and lemons next in importance. The combined imports of these fruits represented 80 per cent of Germany's total imports of fresh fruit. Other fresh fruits imported in considerable quantities were bananas, pears and quinces, berries, damsons, peaches, cherries, and pineapples.

Detailed statistics of fruit production in Germany are not available, but when one considers that in 1925 German exports of fresh fruits were but 1.5 per cent of fresh-fruit imports, and but 3 per cent a year during 1909 to 1913, it is quite clear sufficient to supply domestic needs and there must perforce be an importation from countries more fortunately situated in this respect. In this connection, it should be noted that Germany is a country with a considerable population, a large proportion of which is engaged in manufacturing pursuits.

Quantities and Varieties Imported

The following table shows imports of fresh fruits by Germany in 1925 and average yearly imports during 1909 to 1913, together with percentage of each fruit imported:

German Imports of Fresh Fruit
(Thousands of pounds)

Fruits	1925		1909-1913 (average)	
	Total	Per cent of total	Total	Per cent of total
Oranges 1	460,128	32.9	288,112	22.0
Apples	411,905	29.4	560,275	43.0
Grapes	140,079	10.0	76,817	5.8
Lemons 2	113,322	8.0	81,941	6.2
Bananas 3	89,554	6.4	66,721	5.0
Pears quinces	57,366	4.0	100,698	7.7
Berries 4	49,328	3.5	50,839	3.8
Damsons	28,260	2.0	47,210	3.6
Peaches 5	15,127	1.0	70,463	(6)
Cherries	10,866	(6)	17,758	1.3
Pineapples 3	7,882	(6)	5,289	(6)
St. John's bread	1,034	(6)	9,421	(6)
Other 7	19,805	1.4	13,097	1.0
Total	1,404,148		1,328,771	

1 Includes mandarins.

2 1912-13 average; from 1909 to 1911 lemons were included with dates and figs.

3 Fresh and prepared.

4 Strawberries, raspberries, gooseberries, etc.

5 Apricots were included with peaches in 1909-10.

6 Less than 1 per cent.

7 Includes apricots, plums, etc.

Improved Economic Conditions Lead to Increased Imports

Improved economic conditions in Germany during the past few years resulting from stabilization of German currency and from other factors are brought forcefully to one's attention upon inspecting statistics of German imports of fresh fruits during the five-year period 1921-1925. While imports of fresh fruits were small in 1921, they were almost negligible in 1922 and 1923. The year 1924, however, witnessed a resumption of German imports of fresh fruits, while imports of every item of this class, excepting apples, pears and quinces, and St. John's bread, were larger in 1925 than in the preceding year. Orange imports in 1925 were 1,460,000 boxes (34 per cent) greater than in 1924; grape imports 638,000 barrels (28 per cent); lemon imports, 288,000 boxes (29 per

cent); banana imports, 749,000 bunches (62 per cent); berry imports 12,469,000 quarts (62 per cent); damson imports 384,000 bushels (192 per cent); peach imports, 141,000 bushels (83 per cent); cherry imports, 1,713,000 quarts (38 per cent); pineapple imports, 4,428,000 pounds (153 per cent); and imports of "other fresh fruit," 16,016,000 lbs. (421 per cent) greater in 1925 than in 1924. German imports of fresh apples, however, were 8,595,000 bushels in 1925, as against 11,317,000 bushels in 1924; and 1925 imports of pears and quinces, 1,275,000 bushels, as compared with 1,994,000 bushels the previous year.

Of probably greater importance from a comparative standpoint is the relation between average yearly German imports of fresh fruit in the pre-war period, 1909-1913, and in 1925. German imports of oranges,

Germany's Total Yearly Imports of Fresh Fruit 1909-1913 (average) and 1921 to 1925
(In thousands)

Year	Oranges ¹		Apples	Grapes	Lemons	Bananas ²	Pears and quinces	Berries
	Boxes	Bushels ³		Barrels	Boxes	Bunches	Bushels	Quarts
1925	5,844	8,595	2,986	1,386	1,990	1,275	32,891	
1924	4,384	11,317	2,848	1,048	1,241	1,994	20,422	
1923	881	1,517	77	338	160	173	1,149	
1922	534	88	11	565	24	109	8,048	
1921	1,648	2,174	140	968	14	665	12,535	
1909-1913 (average)	3,659	11,690	1,530	966	1,483	2,238	33,887	

Year	Damsons		Peaches	Cherries	Pine-apples ²	St. John's bread	Other fruit ⁴
	Bushels	Bushels			Pounds	Bushels	Pounds
1925	590	816	6,210	7,382	17	19,806	
1924	206	175	4,497	2,954	45	3,790	
1923	19	(5)	20	314	11	834	
1922	4	3	306	23	13	2,763	
1921	80	(5)	772	9	65	2,599	
1909-1913 (average)	988	218	10,150	5,289	158	13,097	

1 Includes mandarins.

2 Fresh and prepared.

3 For practical purposes 1 box of apples equals 1 bushel and 3 boxes a barrel.

4 Includes apricots, plums, etc.

5 Less than 1,000 bushels.

grapes, lemons, bananas, peaches, pineapples, and "other fresh fruit" in 1925 were larger than the yearly average during 1909 to 1913, but imports of apples, pears and quinces, berries, damsons, cherries, and St. John's bread were smaller. Imports in 1925 exceeded those of 1909-1913 by the following figures: Oranges, 2,185,000 boxes (61 per cent); grapes, 1,356,000 barrels (85 per cent); lemons, 370,000 boxes (37 per cent); bananas, 507,000 bunches (34 per cent); peaches, 98,000 bushels (45 per cent); and "other fresh fruit", 7,701,000 pounds (65 per cent). On

Continued on page 26

ALLEN PICKING BAGS



Patent
1066454



Best Bag Made now ready for delivery.

Purchase through your Jobber or order direct from us.

Allen Picking Bag Co.
Orlando Florida

Make This Test

on Any Grove or Farm

Test NACO Brands on Part of Your Acreage, against any other brand of Fertilizer---

"The Crop will tell the Tale"

This is not a novel idea. NACO brands have been tested in this manner many times before. In every instance the acreage supplied with NACO brands has produced bigger crops. Growers and Farmers in many parts of Florida are making this test. Here is your answer to more yield from your grove or farm, and more cash in the Bank.

Make this test, we welcome comparison.

Write to us for suggestions.

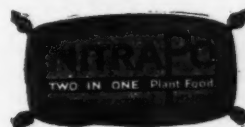
Open Formula

Peruvian Guano Fertilizers

No Filler

NITRATE NACO BRAND AGENCIES
COMPANY

Peninsular Casualty Building
JACKSONVILLE, FLORIDA
P. O. Box 1114



FERTILIZERS

Ideal Brands

The high quality of IDEAL FERTILIZERS for citrus trees, truck and field crops, watermelons, tropical fruits, grass and flowers is unquestioned by all who have used them. They are the result of more than thirty years practical experience and are manufactured to meet Florida conditions.

We are equipped and prepared to make prompt shipment of IDEAL BRANDS in perfect mechanical condition.

Don't delay ordering your fall requirements.

Wilson and Toomer Fertilizer Company

Jacksonville, Fla.

with which is affiliated

Florida Agricultural Supply Company

Orlando, Fla.

\$10,000,000 Lost Each Year Says Gumprecht

"Ten million dollars more each Season for Florida Citrus crop can be realized by a system of orderly marketing," says H. G. Gumprecht, Manager, Manatee County Citrus Sub-Exchange, and he further states that this enormous amount of money is lost each Season, directly or indirectly, through faulty distribution and unnecessary competition. "It does not require imagination to plainly see these figures, for Florida's normal crop will soon average twenty million boxes, then the cry of over-production will spread again, and always does incalculable damage. We know there is no over production, such talk is tommyrot. We have heard the same story for at least fifteen years and for want of better news, this becomes a nice topic for street corner conversation indulged in by misinformed people. The facts are, there never will be an over production of Citrus Fruit of quality and appearance in normal times, providing we keep abreast with our facilities and prepare for such increased production. The old system that could handle five million boxes satisfactorily is entirely inadequate to handle four times such volume.

"Advertising has come to stay. It is today the most powerful agency known, to increase consumer's demand. We have reached the time and must advertise Florida Citrus fruit in a National way (not any one brand) and adopt a system of orderly marketing, then every box of commercial fruit can be sold at a better price than is realized at present. It lies within the power of the Florida Growers and Shippers to stop these periodical slumps in the markets. Such system is entirely too costly and gets us no where. Proper co-ordination will do it. Here is a splendid opportunity for some real constructive work. The Growers and Shippers League or the Fruitman's Club could supervise such system. We must solve the following problem eventually, why not now? It would be a most fitting New-Year's resolution for the Growers and Shippers of Florida to adopt.

"1—The number of marketing agencies should be reduced to a minimum.

"2—Shipments each week should be prorata in accordance with the estimated holdings of each County regardless of affiliation.

"3—A National advertising campaign, advertising Florida Citrus

Fruit, not any one brand.

"The future prosperity of Citrus industry, depends on the solution of these problems as outlined. When this is done an orderly system of marketing becomes established, it likewise protects the Grower as well as the buyer, therefore, fair to everybody. Any shipper or marketing agency that would not co-operate with such a movement should be publically exposed, so everybody would know who is responsible for the demoralized market condition. Such movement would benefit everybody and is not in restraint of trade. Therefore should expect the support of the Government."

GULF FERTILIZER COMPANY OCCUPIES NEW HOME

The Gulf Fertilizer Company of Tampa has occupied its new hollow tile office building adjoining its plant at 35th and 36th streets and the Atlantic Coast Line Railroad. The new offices have every modern convenience. The grounds surrounding the building are being beautified.

HOLLAND APPOINTED FARM AGENT FOR POLK COUNTY

The appointment of Frank L. Holland as county agent in Polk County with headquarters at Bartow is announced by the Agricultural Extension Division of the University of Florida. He will work in cooperation with the county commissioners and the Agricultural Extension Division.

Mr. Holland is a graduate of the College of Agriculture, University of Florida, and has had considerable agricultural experience. Several years ago he was for a short while in citrus canker inspection work in Pinellas County, and more recently he has been assistant cashier of a bank at Frostproof and horticulturist for Mammoth Groves.

Russell Henderson, a Madison County club boy, has been awarded the Dennis scholarship to the University of Florida for showing the grand champion breeding pig in the club show at the Florida State Fair. This scholarship, which is valued at \$250, is given by Frank E. Dennis, livestock broker of Jacksonville.

Great profits from little pine seeds grow on otherwise unprofitable land.

Consider now ordering Fertilizer for fall application
"SIMON PURE AND GEM CITRUS BRANDS"

"Time Tried and Crop Tested"

	Ammo.	Potash	A. P. A.
Simon Pure No. 1	4	12	6
Gem Fruit & Vine	3	10	6
Gem Citrus 4-12-6	4	12	6
Citrus Special			
2-10-10	2	10	10
Fruit & Vine 5 Per			
Cent Special	3	5	6
Citrus Special 4-8-8	4	8	8
Gem Orange Tree	4	6	5
Gem Tangerine	5 1/2	12 1/2	7 1/2
Satsuma Special	4	6	5

Get new price list, order early. QUALITY first, FAIR PRICES, PROMPT SHIPMENT. Thirty-five years manufacturing fertilizer for Florida Growers. CASH WITH ORDER DISCOUNTS THIRTEEN PER CENT.

E. O. Painter Fertilizer Co.
Jacksonville, Duval County, Fla.

The Best There Is In Dentistry

FREE EXAMINATION - OUT
OF TOWN PATIENTS FIN-
ISHED SAME DAY

Dr. W. Parker's
Dental Offices

202-4-6 Ferlita Bldg.
Tampa, Florida
Corner Franklin & Twigg
Hours: 8:30—7:00
Sundays: 10:00—1:00

PLANT CITRUS TREES NOW

The planting season is nearing its end and immediate action is required if you get your trees in this year.

TWO YEAR OLD BUDDED STOCK

Ready for immediate delivery

Every tree backed by the Thomas Guarantee. The finest varieties of Parson Brown, Valencia, Pineapple Oranges and Marsh Seedless and Excelsior Grapefruit. These trees are two years old and from the best budded stock. While they last

75c EACH In Lots of 100 or More **\$1 EACH** Single trees

C. E. THOMAS NURSERIES

404 1/2 Zack St.—Telephone 3692

TAMPA, FLORIDA

BANK ADVERTISES

FLORIDA CITRUS

The Atlantic National Bank of Jacksonville, Mr. Edward W. Lane, President, is to be commended for a most unusual and interesting series of advertisements, based upon the citrus industry of Florida and appearing in the Jacksonville newspapers. Each advertisement carries a striking and graphic illustration bearing upon the subject matter, which emphasizes the importance and colossal extent of this industry to the state.

An advertisement appearing in The Times-Union, November 22, read as follows:

Citrus Crop Prospects for 1926

During the season, September 1st, 1925, to July 20th, 1926, approximately 14,694,120 Boxes of Citrus Fruit—Oranges, Grapefruit and Tangerines—were produced in Florida, of which 750,000 boxes were consumed in the State, 435,000 boxes used by canning factories and 250,000 boxes shipped out of the state by truck. The total estimated revenue received from the sale of this crop was \$94,586,977, of which \$54,765,912 came to the state of Florida.

In spite of the storm the season of 1926-1927 promises to show even higher figures. It is estimated that the storm losses are about 5,700 carloads. This will still leave around 15,000,000 boxes for home consumption and export. This is due to the fact that more trees come into production each year owing to the foresight of the progressive citrus growers. The citrus crop increased tenfold in the past twenty years and promises to double itself again in the next ten years.

An industry involving such enormous incomes and expenditures needs financing on a large scale. To assist in doing this is one of the many activities of the Atlantic National Bank which stands four-square behind Florida's second largest industry.

Florida needs many such advertisers during the present period of stabilization, for after all her greatest assets and future development rests in fertile soil and its cultivation.

THE CITRUS INDUSTRY congratulates The Atlantic National Bank and The Associated Advertising Agency, Inc. of Jacksonville who prepared the plan, for such foresight and progressiveness.

Human tongues, like horses, travel fastest when they have the lightest loads.

The Rare and the Unusual



In citrus as well as in tropical ornamentals can always be secured from the Royal Palm Nurseries.

Are you familiar with the new pink sport of Marsh Seedless Grapefruit being introduced by this firm under the name of

THOMPSON GRAPEFRUIT ?

We have a limited quantity of excellent stock on Sour Orange and Cleopatra Mandarin roots at \$2.50 each — \$22.50 per 10 — \$200 per 100.

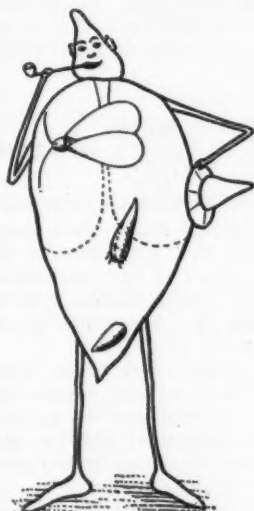
As introducers of the Royal and Foster Grapefruit, Oneco, Mandarin, and Cleopatra root-stock we invite your attention to what we believe will in a few years become a leading commercial variety.

Reasoner Brothers'

ROYAL PALM NURSERIES



1226 Benedict Avenue
Oneco, Florida



Ci Lea Says:

"He who hesitates has
lost the December Number."

THE CITRUS LEAF is the best and only practical Growers Paper in the State. J. G. GROSSENBACHER, its Editor, is Florida's Best Citrus Horticulturist. We all know his ability.

THE CITRUS LEAF has been enlarged and put on a subscription basis. The price is one dollar per year. Send a check or a dollar bill NOW in order to receive the December Number.

CITRUS LEAF

APOPKA, FLORIDA

GERMAN FOREIGN TRADE

IN FRESH FRUITS

Continued from page 22

the other hand, imports of apples were 3,095,000 bushels (25 per cent) less in 1925 than the average for 1909-1913; imports of pears and quinces, 963,000 bushels (44 per cent) less; imports of berries, 996,000 quarts (30 per cent) less; damsons, 398,000 bushels (40 per cent) less; cherries, 3,940,000 quarts (39 per cent) less; and St. John's bread, 141,000 bushels (90 per cent) less.

Total German Imports of Fresh Fruit

The preceding table shows total yearly imports of fresh fruit by Germany during 1909-1913 and 1921-1925:

Italy Principal Source of Imports

In 1925 Italy was the principal source of German imports of lemons, pears and quinces, table grapes, peaches, cherries, St. John's bread, and "other fresh fruit." Spain furnished most of the oranges, Columbia most of the bananas, and the Netherlands the greater part of the apples and berries, while Czechoslovakia led in damsons and Australasia furnished the greater share of the pineapples. Other countries contributing to German imports of fresh fruit in 1925 were France, Belgium, Hungary, Switzerland, Rumania, United States, Austria, and Portugal.

Italy also furnished most of Germany's fresh-fruit imports during 1909 to 1913, having been the principal source of lemons, table grapes, peaches, cherries, and "other fresh fruit." Austria-Hungary was an important source of supply in the pre-war period, being credited with practically all the German imports of damsons, half the supply of pears and quinces, 18 per cent of the apples and berries, and approximately one-quarter of imports of "other fresh fruit." After the World War the Empire of Austria-Hungary was partitioned into several independent nations, and a study of German statistics indicates that Czechoslovakia, Hungary, Austria, and Yugoslavia are in a fair way to regain the place in the German market which they formerly occupied as integral parts of the Austrian-Hungarian Empire.

HORTICULTURE STUDENTS
VISIT GROVES OF WEST COAST

Seventeen advanced horticulture students of the College of Agriculture have just returned from a one week's trip of the citrus section of the state, bringing with them new knowledge of some of the state's horticulture and horticultural prac-

THE CITRUS INDUSTRY

tices. The party left the University November 28, returning at the close of a week, on December 4. The trip carried them through central Florida and along the West Coast as far south as Fort Myers.

This trip is regular part of the course in horticulture each year and includes the more important horticultural activities of the state. Groves, and packing houses were visited for the purpose of a practical knowledge of the fruit growing industry.

The party was in charge of Prof. E. L. Lord, and consisted of the following students: R. E. Bateman, Wauchula; H. I. Borders, Jacksonville; W. J. Collany; G. B. Ellis, Callahan; A. G. Erwin, Anthony; J. H. Gelston, Gainesville; J. C. Graves, Tampa; H. B. Johnson, Windermere; Phil and George Merrin, Plant City; H. S. Robinson, Fort Pierce; L. R. Toy, Freeman; J. H. Wallace; H. M. Welch, St. Petersburg; C. D. Wilder, Tampa; D. B. Taylor, Chicago; and D. H. Yawn, Graceville.

The trip was made in a large bus of the Venice Company, through whose courtesy the students were enabled to see more real horticultural developments than would have been possible had the trip not been made by bus.

FIRST ARREST MADE
IN THEFTS OF FRUIT

The Bradenton Citrus Growers' association attained results in a campaign against fruit thieves when H. Wiatt, field man of the association who has been commissioned deputy sheriff, made the first arrest on a charge of petty larceny.

The association officials have complained to frequent and apparently organized depredations on groves, and have a reward of \$100 posted for arrest and conviction of any person caught stealing citrus.

In one case thieves entered a grove enclosure in the night and carried away fruit that was picked, boxed and ready for transportation.

Andrew Carnegie always was ready to take you by the hand and encourage and approve I wonder if you reflect how you, yourselves, how every man, respond with best efforts under such conditions. I have yet to find the man, however great or exalted his station, who did not do better work and put forth greater effort under a spirit of approval than he would ever do under a spirit of criticism.—Charles M. Schwab.

School children need goods lights for studying.

December, 1926

Returns
8%
with
100%
Security

FLORIDA'S
SAFEST INVESTMENT
Capital \$2,000,000
Let us send booklet
Lakeland Building & Loan
Association
Lakeland, Florida

The Newark Company

Incorporated

CARLOT DISTRIBUTORS
COMMISSION MERCHANTS
FRUITS AND PRODUCE

159 SO. ORANGE ST.
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Light Plants, Automatic
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tric Refrigerators
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for treble duty: Insecticide carrier,
food for trees and soil conditioner.

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THE NATIONAL FARM NEWS
216-217 G St. N. W. Dept. XX Washington, D. C.

December, 1926

WATERMAN BOOSTS

FLORIDA CITRUS FRUIT

At the Eleventh National Hotel Exposition, held last week at the Grand Central Palace, New York City, Frank D. Waterman, President of Fountain Inn, Eustis, Fla., presented a unique souvenir of his hotel property to the wives and ladies of the families of the metropolitan hotel proprietors and out-of-town hotel-keepers operators who visited the Exposition. Incidental to a complete exhibit of Waterman fountain-pens and Waterman pencils, maintained at the Exposition by the L. E. Waterman Company, a most attractive illuminated transparency showing of the Fountain Inn at Eustis was featured. The souvenir presented by Mr. Waterman took the form of what is known in the Florida orange country as an "orange reamer", or juice extractor. It is made of "Durock", a composition of almost unbreakable clay, in two sections—a deep cup, for the juice, and a cap, outwardly and inwardly grooved, with an aperture sufficient for the entrance of the juice into the cup, but narrow enough to exclude the seeds. The cup bore the imprint: "Fountain Inn, Eustis, Fla."

At the hotel, in Florida, oranges and grape fruit are distributed free to patrons in the lobby, at all times, but one of the juice extractors has been placed in each room for the accommodation and benefit of the patron who may wish to obtain the fruit juice in the early morning, before dressing. It is a dainty symbol of the great citrus industry of Florida and one that makes its special appeal to the northerner visiting Eustis and the Fountain Inn for the first time.

Mr. Waterman observed some strange uses to which the reamer was put by some of those to whom he presented it. One man wrote thanking him for the "tobacco jar", which his wife had turned over to him as she was not a smoker; he had found it very useful and of "just the right size". From another he learned that the extractor was doing yeoman service as a soap dish. Another 'phoned to say that his wife had found it extremely serviceable for her home cook's use, because the top grooves made such a pretty mold for individual pastries and the "dish" could withstand any oven heat.

RAILROADS SEEK TO CANCEL THROUGH RATES

The consumers of fresh vegetables and fresh fruits in Florida will be

THE CITRUS INDUSTRY

forced to pay higher prices for their fruits and vegetables received from the Pacific Coast, if a proposal made by the railroads on November 12th goes into effect.

The southern railroads have proposed to the Trans-continental Freight Bureau in Docket 7369 to cancel all joint through rates between Pacific Coast territory points and points in Florida south of the line of the Seaboard Air Line Railroad between River Junction and Jacksonville and thereafter to apply combination rates.

This means, according to Mr. J. Curtis Robinson, Secretary-Manager of the Growers and Shippers League, that where heretofore the same rates

Twenty-Seven

have been applied to all points in Florida on vegetables and apples from the Pacific Coast that hereafter the receivers of these commodities will be compelled to pay the local rates from Jacksonville to the destinations in Florida. An advance of over \$200.00 per car of 24,000 pounds is proposed on celery, lettuce and Vegetables N. O. S. On potatoes the increase per car of 24,000 pounds is \$81.60. On apples the increase per car of 756 boxes is \$185.24, equivalent to 24½ cents per box.

According to Mr. Robinson, the railroads attempted to cancel the through rates from the Pacific Coast to Florida destinations in September

Continued on page 34

Plant Wartmann Trees

"For Highest Market prices"

Palms and Ornamentals

Home Plantings a Specialty

WARTMANN NURSERY CO.

Office: Silver Springs Boulevard

OCALA, FLORIDA

PHONE 558

Member: American Association of Nurserymen

Southern Association of Nurserymen

HOTEL HILLSBORO

Tampa, Fla.

TOP O' THE TOWN

European Plan, Fireproof 300 Rooms With Baths

THE CENTER OF TAMPA

The Use of Gypsum in Farm Buildings

By James A. Schad, C. E.

What protection have you on the farm against the constant and menacing fire hazard to your buildings? A lamp might be overturned; the flues in your heating system may become overheated; a careless person smoking might thoughtlessly drop a lighted match in your barn! These and numerous other causes of fire give rise to unceasing anxiety. Should a fire start in your house or in your barn, contemplate what the results might be. Living in a rural section, you cannot depend on any well organized and efficient fire department such as is available in cities. Perhaps your buildings are open to the full sweep of the wind. In a short time they are destroyed, perhaps burned to the ground. Before your eyes, the work of years of constant endeavor is swept away in a few short moments and you are helpless to prevent it. It is true that you may be protected with fire insurance, but you are not recompensed for the loss of time involved in rebuilding nor for the loss of the continued use of your buildings.

Annual Fire Loss Enormous

Some statistics and illustrations will aid in visualizing just how enormous and stupendous is the total annual fire loss in this country, especially in rural communities. The yearly fire loss in the United States and Canada is so great that it would build nearly two Panama Canals; it would pay the cost of the American postal service; it would meet the salary of practically every school teacher in the United States. For the five year period from 1919 to 1923 statistics of the Actuarial Bureau of the National Board of Fire Underwriters show that the average daily loss on farms alone due to fire, was \$77,346. The total loss for the five year period amounted to over \$141,000,000. One farm in every thirty-two suffered more or less loss. On an average there is a farm fire somewhere in the United States every fifteen minutes and each day ninety-six farm buildings are destroyed by flames. Staggering as is this national property loss due to fire, it does not of course, include the loss of life. Last year 15,000 Americans were killed and 16,000 injured severely in fires. This human toll is about twice that of ten years ago.

Recently the President of the National Farm Federation stated that ninety-eight out of one hundred farm houses are built of wood. These figures indicate that practically all farm buildings are of frame construction and probably wood will be used extensively for a great many years to come. With such construction, what, then, is the solution of this constant fire threat? How can the farmer be relieved of this anxiety? What steps can he take to insure himself the greatest security against fire and at the same time do it economically? The solution is the use of fire resistive building materials to fireproof the wood frame of his buildings.

Gypsum Affords Adequate Fire Protection

The fire resistance of gypsum building products has long been recognized in the fireproofing of structural steel by the use of gypsum partition tile. The necessary protection for wood studs, joists, and rafters can be obtained just as readily by the use of gypsum lath or gypsum wall board and gypsum sheathing board.

Statistics show that a large number of fires originate in the interior of the building. The fire can be confined very largely to its point of origin and the interiors of frame buildings can be protected against fire by plastering or by use of an incombustible wall board. In order to obtain adequate protection, an incombustible lath should be used as the base for the plaster. Gypsum lath, an incombustible and fire resisting product, is admirably suited for this purpose as has been shown by successful fire tests which have been conducted. This gypsum lath is manufactured in convenient and economical sized sheets to fit the standard spacing of studs, joists, and rafters. Any necessary cutting and fitting can be easily accomplished since the boards, when cut or sawed with the usual tools, permit of true straight edges. After the gypsum lath is in place, it is plastered with gypsum plaster which has the requirements for a well plastered job. These are quick setting and drying, permanency, strength, fire resistiveness, ease of application, and low heat conductivity.

If, instead of plastering the inter-

ior wall and ceiling surfaces, it is desired to line them with a product which will give a very appreciable degree of fire protection, gypsum wall board can well be used. This product is somewhat similar to gypsum lath, the difference being that the former is used in place of lath and plaster, the decorative finish being applied directly to the board. Gypsum wall board is incombustible and, being manufactured from rock gypsum, it cannot warp. It is made in large size sheets (lengths up to ten feet) to fit the wood frame construction conveniently and economically. This product presents a very serviceable and satisfactory surface and need have no further surface treatment. However, if it is desired, wall paper can be applied directly to it. Also, its surface is so treated during its manufacture that oil or water paint decoration can be used if it is desired.

On the outside of the wood frame the building, gypsum sheathing can be applied directly to the studding. This product is a specially prepared gypsum board to be used as the exterior sheathing in the construction of wood frame buildings. These boards are incombustible and, since they afford a high degree of fire resistance, their use will protect to an appreciable degree any wood framing from the action of fire. Furthermore, because of its insulating quality, no building paper is necessary when gypsum sheathing is used. Also, strength tests have shown that this sheathing provides a construction that is many times stronger and stiffer than similar construction in which other sheathing is used. This type of board is used as indicated above and is protected by a covering of wood siding, shingles, stucco, or masonry veneer. Also, it is used for roof sheathing.

When the building frame is covered both inside and outside with materials that are incombustible and of low heat conductivity, even greater fire protection and insulation can be obtained. The spaces between the incombustible coverings on the inside and outside of the walls can be filled with cellular gypsum which is mixed with water, or a gypsum fill which is applied dry. Also, this fill can be placed between the rafters over the ceiling of the top story. In this way

the entire building is enclosed with practically a solid wall of gypsum and the ceiling is blanketed, thus preventing loss of heat through the roof and walls. The saving in fuel in a house so insulated will in a compara-

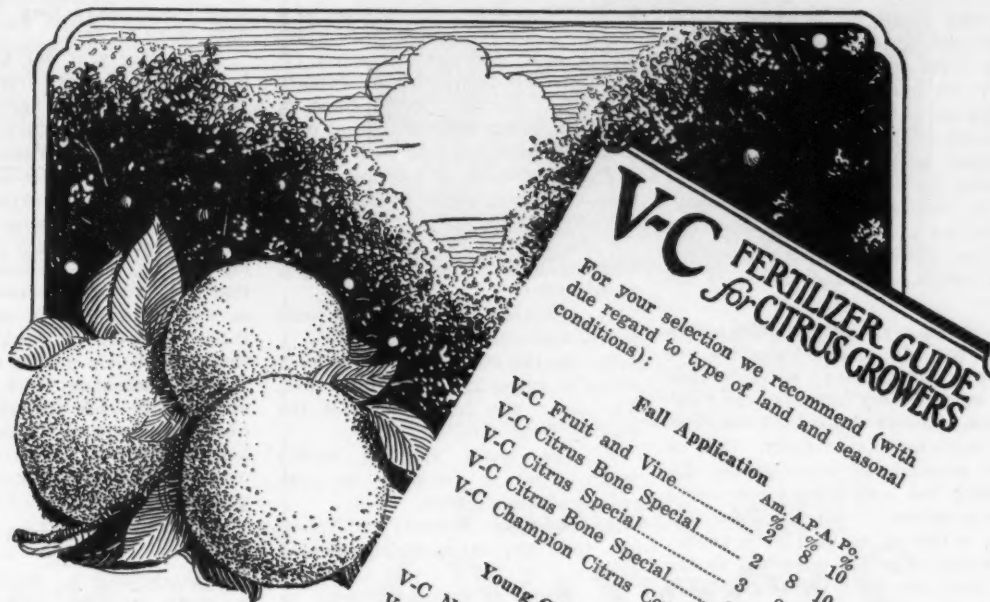
THE CITRUS INDUSTRY

tively short time pay for the cost of the insulation.

Not only can gypsum products be used in the farmhouse, but they can be used effectively in other buildings such as barns and poultry houses.

The increased sanitation obtained and also the ability of gypsum boards to prevent leakage of air, thus providing warmer quarters for the animals, are of great importance in

Continued on page 33



V-C FERTILIZER GUIDE for CITRUS GROWERS

For your selection we recommend (with due regard to type of land and seasonal conditions):

	Am.	A.P.A.	Po.
Fall Application			
V-C Fruit and Vine.....	2	8	10
V-C Citrus Bone Special.....	2	8	10
V-C Citrus Special.....	3	8	10
V-C Citrus Bone Special.....	3	8	10
V-C Champion Citrus Comp... 3	10	14	
Young Citrus and Nursery			
V-C Nursery Special.....	4	8	10
V-C Special for Young Trees.. 5	7	8	10

Fertilize for Fall Conditions

Put your citrus trees in shape for next season by a fall application of the RIGHT kind of fertilizer.

The V-C Fertilizer Guide shows the grades that the experience of successful growers has found to give the best results.

V-C Grades for Citrus are made with—
—Just enough Nitrogen to keep the trees active without producing too much tender growth—
—d a n g e r o u s in case of frost.



—Phosphoric Acid sufficient to form the bud wood for next season.

—Potash in abundance to give resistance to weather, and to hold the fruit long on the trees.

V-C Fertilizers for Citrus contain the plant food in the forms and proportions that are approved by Horticultural experts as most desirable for fall conditions.

Our experienced field men will be glad to help you solve your fertilizer problems.

See your local dealer for V-C Fertilizers or write our office for price list.

**VIRGINIA-CAROLINA
CHEMICAL CORPORATION**
Jacksonville, Fla.

Fruit Splitting

Hunt Brothers, citrus service men of Lake Wales, Florida, in their service bulletin, give the following talk on splitting of citrus fruit, which has been unusually prevalent this year.

Twice yearly the citrus grower must see large quantities of fruit drop from the tree; in the spring after blooming when we have the spring shedding and in the fall when we have our season of splitting. The splitting season is particularly distressing for it is heart breaking to see a nice large crop of Valencias which one has fertilized and sprayed and on which one was expecting a nice return, split and fall from the trees.

Splitting has been unusually severe this year. As usual, Valencias are splitting much more severely than any other variety but this year Pineapples, Hamlins and even Tangerines are splitting considerably. This is most unusual. In some groves the splitting has been much more severe than in others. It ranges all the way from a loss of about 1% to 100%. In Valencia groves examined so far this year, loss from splitting will average close to 40%. This is a huge economic loss which should be stopped.

In years past we have thought that we knew the cause of splitting. The explanation given by the Plant Physiologist of the Experiment Station was this: At the close of the rainy season a drought occurred which checked the growth of the fruit and the rind started to harden. Then we would have a rain, the inside of the fruit would grow more rapidly than the rind could expand and as a result, fruit would start to burst and keep on bursting till the tension was relieved. This sounded logical and we were able to accept it on the whole heretofore. But this year we have not had one day of drought and when the calendar got around to September first the fruit started to split and has kept right on splitting despite abundance of water. This proves that we know absolutely nothing about the fundamental cause of splitting. Some people are blaming the splitting to the abundance of rain we have had this year but the writer thinks it inconsistent after blaming splitting on to the drought for thirteen years then to swing around and blame it onto this year's abundance of rain.

It is undoubtedly true that in years past rains following a drought in the fall have been followed promptly by

much splitting. But our experience this year indicates that the fruit must have been just about ready to split anyhow with too much inside pressure and that the increased turgidity caused by the fruit taking up the water suddenly at the close of a drought, hastened splitting which would have doubtless occurred regardless. This means that in ordinary years the splitting would come in gusts following the termination of a drought while in a year such as this, the same amount of splitting is distributed evenly over a longer period.

There are only a few things that we can say with any degree of certainty about splitting. We will put them down:

1. Splitting is much worse some years than others.
2. On the whole, splitting is much worse in young groves than old ones. The older the trees, the less the trouble from splitting.
3. The worst splitting occurs where there is practically no cover crop in the groves.
4. Splitting is worse on Valencias than any other widely planted variety.
5. When a drought breaks in September or October, a gust of splitting is pretty sure to follow.
6. So far as is known now, no particular brand of fertilizer affects splitting one way or the other. If any one company had a non-splitting brand that worked, it would get all the trade.
7. September and October are "splitting months."
8. Splitting occurs on all kinds of soil.
10. Grapefruit practically never splits.

Now for a few things we believe to be true but about which there may be some doubt. We believe that

11. Splitting is worse on the average in the sand hills than on the heavier soils.
12. That splitting is lessened where heavy cover crops, particularly leguminous cover crops, have been grown and turned under.
13. That die-back and splitting are related in some way.

Now let us set down a few points that are believed by others but concerning which we have serious doubts.

14. That root pruning early in September will stop splitting.
15. That the application of blue stone to the soil will stop splitting.
16. That the application of Pot-

ash to the soil will stop splitting.

We know excellent grove men who believe firmly in preventatives numbers 14 and 15 and 16 and must admit that we have seen cases where they seemed to work but we have also seen cases where they undoubtedly have failed to work.

Year after year our State suffers heavy economic loss from the splitting of fruit in the early fall. This amounts on the average to about one-fifth of the crop of Valencias, a loss we can ill afford. We have learned this year that we know nothing concerning the fundamental underlying cause of splitting. Each year finds a big variation in the amount of splitting in groves. It is extremely heavy in some, negligible in others. Why the difference? We should learn and then handle our groves accordingly. It is a situation in which a scientific investigation of the fundamental causes of splitting offers the only hope.

THOMPSON PINK MEATED GRAPEFRUIT

The Editorial department of The Citrus Industry recently received from Mr. N. A. Reasoner of the Royal Palm Nurseries, Oneco, Florida, a sample box of the Thompson Grapefruit. (Sometimes called the New Pink Marsh Seedless.)

This fruit reached us on December 2nd. and although, the Thompson is really a late ripening fruit, reaching its highest degree of perfection in late February or March, the fruit received, even at this early date was highly flavored, extremely juicy and delicious to the taste, giving promise of the extreme delicacy which may be expected from the fruit when fully ripened and matured.

In a letter accompanying the fruit Mr. Reasoner says:

"These are not representative fruit of the New Pink Marsh Seedless or Thompson, however, as the original tree has a very heavy crop this year and the result is, that the fruit is much smaller than usual.

"Then, too, they will be much better for eating purposes and also better colored around February or March as they are really a late grapefruit. We hope, however, that you will get an idea of just how valuable a fruit this is going to be for the Florida market and will also get some idea as to the delicious taste and freedom from seed that distinguish this fruit from the earlier pink meat-

ed Foster grapefruit."

The writer can say in all sincerity and truth that Mr. Reasoner has understated the excellence of the fruit which we received.

We understand that shipments of this Thompson grapefruit are being made to Texas by the Royal Palm Nurseries. In the newly developed citrus section of the Rio Grande Valley, the pink meated varieties of grapefruit are ruling favorites with both growers and consumers and this Florida fruit will find plenty of pink meated company when it reaches the Lone Star State.

PUTTING THE CITRUS

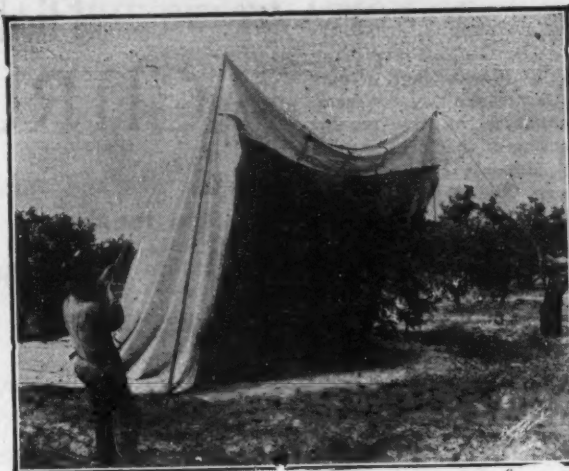
TREES TO SLEEP IN THE RIO GRANDE VALLEY

Continued from page 6

the temperature of the surrounding air and may form cold pockets about the tree that will prove injurious. Such conditions were clearly shown last year when the sleet occurred. This was held about the trunk of the tree in such a manner as to cause considerable injury. Mats and corn stalks will protect, however, from a gravity frost that only lasts a very short period.

The use of various tree protectors has not proven a success, though there are some instances reported where good was accomplished. Sizing up of the devices used to protect the bud, the most satisfactory as well as most economical is the use of Bordeaux paste and soil, as mentioned above.

The use of home-grown balled trees set in the fall and early winter have proven to be exceedingly resistant to cold. This has been strikingly illustrated by the past two winters, such trees having gone through without injury. The observation of this fact has caused a heavier demand for fall stuff than ever experienced in the Valley. The apparent reason for this resistance is due to the fact that in balled trees a certain amount of the roots are lost, the top remaining practically intact. The first effort of the newly set trees is to re-establish its root system. This it does, so that by spring it is ready to start vigorous growth. If properly handled, it will make a more satisfactory growth the first year and be in better condition for the second winter than if spring planted. A bare-rooted tree of necessity has the foliage removed so just as quickly as possible it starts root growth and top growth. The result is such trees cannot be safely set in the fall. In fact, there are only about two months of the year, March and April, when they are satisfactory.



Stop the depredations of scale insects, white fly, rust mites and other citrus pests by fumigating under tents with Cyanogas Citrus Dust. You can kill these pests 98-100% at one operation.

Fumigate with CYANO GAS REG. U.S. PAT. OFF. CITRUS DUST

This effective and economical material is a combination of Cyanogas and Sulphur which gives off hydrocyanic acid gas when exposed to air. This gas is the most powerful insecticide known to science. Its deadly fumes penetrate even into the curled leaves.

"Fumigations are now being conducted by our men throughout Florida. We will fumigate your grove for you, furnishing all material and labor, at a cost that will enable you to protect your trees from all citrus pests and make a greater profit. Write for particulars and price, stating size of grove."

Ask for free leaflet 37, which gives full information

AMERICAN CYANAMID SALES COMPANY
Incorporated

33 W. Amelia Avenue
Orlando, Fla.

511 Fifth Avenue
New York, N. Y.

**ROBINSON EXPLAINS
WORK OF LEAGUE**

Mr. J. Curtis Robinson, Secretary-Manager for the Growers and Shippers League of Florida gave a short talk before the Orange County Chamber of Commerce at the regular monthly meeting of that organization in Orlando, Monday, November 29.

The Orange County Chamber and the Orlando Chamber of Commerce as well as the Growers and Shippers League of Florida were represented by Mr. Robinson at Atlanta on November 22nd in a conference with Mr. Charles Barham, Chairman of the Southern Freight Association.

The Florida Organizations were opposing proposal by the Southern Carriers to cancel present joint thru rates between Pacific Coast points and points in Florida south of the Line of the Seaboard Air Line R. R. from Jacksonville to River Junction, Florida.

About 1000 cars of Western Fruit and vegetables originating on the Pacific Coast find their market annually in Florida during the season Florida is not shipping says Mr. Robinson, "We also consume from 90 to 100 cars of Pacific Coast paper for wraps for our fruit and vegetables.

Canned goods from the Pacific Coast are used in Florida in quantities. These Pacific Coast commodities find an outlet in the peninsula state which has continued to grow from a small beginning when the rates were first established into Florida.

The rates proposed which would be class or commodity rates south of Jacksonville, Florida would be additional over the present thru rates and would make a charge for the haul south of Jacksonville which is considered unjust and unreasonable for the service performed. Many other reasons were given as objections.

Mr. Robinson spoke last week before the weekly luncheon of the Sanford Chamber of Commerce. Endorsement of the work the Growers and Shippers League is doing for the growers and shippers of horticultural and agricultural products has been given by resolutions passed by the Orange County and Seminole County Chambers of Commerce and by many of the Chambers of Commerce of local cities in the State. The League is proving to be one of the most active organizations in the State.

**SHIPPERS FILE BRIEF IN
LINE HAUL RATE CASE**

The Brief of the Florida Shippers in their now famous Line Haul Rate Case has been filed by Mr. C. R. Mar-

Highest Quality CITRUS STOCK

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shall, Attorney for Complainants and Interveners, in the Complaint entitled "Railroad Commissioners of the State of Florida, vs. Aberdeen & Rockfish Railroad Company et al. Growers and Shippers League of Florida, Intervener.

The Brief was signed by R. Hudson Burr, Chairman, Fred H. Davis, Attorney for Railroad Commissioners of the State of Florida, J. Curtis Robinson, Secretary-Manager for Growers and Shippers League of Florida, C. R. Marshall, Attorney for Complainant and Intervener.

The record in this case is the most voluminous and the inquiry and date presented by both complaining parties and by defendants into the rates from Florida was the most comprehensive that has ever been presented in any of the several cases that have been brought by Florida shippers against the rates on citrus fruit and vegetables. It is the largest fruit and vegetable case ever presented before the Commission by southern shippers. The transcript of testimony covers 3259 pages. Sixty different witnesses were examined and there were 591 exhibits filed, some of which are quite voluminous and contain many pages.

Three hearings were held at Orlando and Jacksonville, Florida and Virginia Beach, Virginia. The hearings occupied the total of 27 days.

The complaint was filed by the Railroad Commission, State of Florida, by R. Hudson Burr, Chairman, at the instigation of the Growers and Shippers League. The Growers and Shippers League of Florida by J. Curtis Robinson, Secretary-Manager, in behalf of their members.

The State of Florida was represented by Mr. R. Hudson Burr, Chairman and Mr. Fred H. Davis, Attorney for the Railroad Commissioners. The Growers and Shippers League employed Mr. C. R. Marshall, expert commerce attorney of Washington, D. C., who represented both complainant and intervener in planning the case, examining the witnesses and preparing the brief and will represent both in making final oral argument before the Interstate Commerce Commission.

The brief, as filed, consists of 260 pages with 14 appendices or exhibits.

THE USE OF GYPSUM

IN FARM BUILDINGS

Continued from page 29

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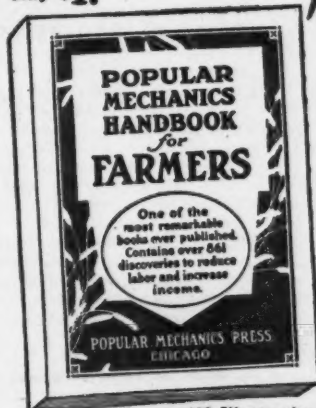
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24 on field machines	17 on the lawn
48 on concrete work	149 on household helps
22 on orchard work	79 on miscellaneous farm work
23 on painting	16 on hunting, fishing, and trapping
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MARKETING EFFICIENCY—

WHAT REMEDY?

Continued from page 7

Sales Managers of the service organizations of growers in the Citrus industry in California—

"The Growers Committee of Redlands, California, in a meeting held on Tuesday, October 25, 1926, unanimously passed the following resolution:

RESOLVED that, whereas in the season just closing one of the largest crops of oranges in the history of the State has been marketed, and whereas the distribution of this crop has been handled in such manner as to bring very satisfactory returns to all growers, the Growers' Committee of Redlands desires to express its appreciation of the proper and legitimate co-operation between the Sales Managers of the various marketing organizations, and to congratulate each and every Sales Manager upon the results that have been attained so far.

Resolved further, that a copy of this resolution be sent to the Sales Manager of each and every marketing organization that has lent itself to this more comprehensive co-operative movement which has proven so beneficial to the industry as a whole and thereby conserved the best interests of the individual.

Sincerely yours,

THE GROWERS COMMITTEE
OF REDLANDS

(Signed) G. Stillman Dexter, Sec."

RAILROADS SEEK TO

CANCEL THROUGH RATES

Continued from page 27

1924, but an appeal was made by those interested and the Interstate Commerce Commission suspended the proposed tariff. Before the hearing was held the Florida Carriers agreed to withdraw the suspended proposals subject to the approval of trans-continental lines. Naturally the Trans-continental lines were not favorable to the new schedules as the through rates from the Pacific Coast gave to their shippers an additional outlet in Florida for many hundreds of carloads of vegetables during the season when Florida was not producing and also gave an outlet for some of the apples grown in the Pacific Northwest.

While the producers of vegetables and citrus fruits in Florida will not have their rates affected by this proposal, we are, nevertheless, said Mr. Robinson, opposing the proposal to establish local rates south of Jacksonville. The carriers have for years attempted to charge shippers propor-

THE CITRUS INDUSTRY

tional rates to Jacksonville rather than through rates from points of production in Florida to the consuming markets in the north the same as are named on fruits and vegetables on the Pacific Coast, and this is one of the contentions in the Line Haul Rate Case of the Florida shippers now before the Interstate Commerce Commission for adjudication.

It is understood that Mr. Robinson of the Orlando Traffic Bureau will in behalf of his clients file protests with the Trans-continental Freight Bureau against these radical increases in rates on Perishables.

"THOROUGHBREDS"

"Thoroughbreds", That certainly describes Florida Citrus fruits and vegetables and for this reason doubtless the name has been claimed by the Standard Growers Exchange of Orlando, Florida, as its trade mark under which superior quality fruits and vegetables will be shipped. Trade mark number 211,716 has just been issued to the Standard Growers Exchange carrying the trade mark "Thoroughbreds" for the fresh fruits and vegetables shipped by that company. Certainly no better trade mark could have been named.

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olly citrus land; 4 acres cleared with small house, and large nice bearing orange trees full of fruit. Nicely located near Altamonte Springs, Fla. For particulars write H. A. Lunquiere, 41 N. W. 29th St., Miami, Fla.

WANT TO SELL HALF INTEREST IN FIFTEEN ACRE SATSUMA BEARING GROVE ON HIGHWAY NEAR PANAMA CITY. ROBT. LAMBERT, OWNER. FOUNTAIN, FLA.

SATSUMA BUDWOOD from Bearing Trees. Hills Fruit Farm, Panama City, Fla.

FOR SALE—Pineapple land in winterless Florida. \$15 an acre. Almont Ake, Venus, Fla.

WANTED—To hear from owner of land for sale. O. K. Hawley, Baldwin, Wis.

MISCELLANEOUS

FROSTPROOF cabbage plants—500 \$1.00 postpaid. Expressed \$1.00 thousand. Wholesale Plant Co., Thomasville, Ga.

ADVERTISING RESEARCH WANTED: Specialist in foods and nutrition, drugs, disinfectants, and insect control. Successful record in copy work and syndicate writing. Desire assignments in fruit products. Can introduce new facts and put new punch into educational advertising. Mrs. Susa P. Moore, P. O. Box 523, Chicago.

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WHITE WYANDOTT Cockerels, regal strain—the best in the country, direct from Martin pens. Utility and show birds \$5.00 each; also eggs for hatching \$5.00 per 16. W. A. King, Gen. Del., St. Petersburg, Fla.

SOUTHDOWN SHEEP, White Rocks, Toulouse Geese, Guineas, Angora and Milk Goats, Circular free. Woodburn, Clifton, Va.

WANTED: Competent man to work ten acre farm near Ocala, Florida, profit sharing basis. Young tangerine grove, many fruit trees, rich soil. Big money in onions, poultry. Comfortable, furnished house, good barn. R. F. D. 41, Burbank, Fla.

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